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Developing a holistic strategic thinking perspective for universities

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Declaration of any previous submission of the work

The material presented here for examination for the award of a higher degree by research has been incorporated into a submission for another degree. (If applicable, provide the relevant details i.e. those parts of the work which have previously been submitted for a degree, the University to which they were submitted and the degree, if any, awarded).

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I am the author of this thesis, and the work described therein was carried out by myself personally, with the exception of ……. article/chapter where …… (detail the amount in percentage terms) of the work was carried out by other researchers (e.g. detail any collaborative works included in the thesis in terms of formulation of ideas, design of methodology, experimental work, and presentation of data in journal format).

Candidate's signature……

Dedication

To Nitai and Nimai

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Abstract

There is a plethora of literature that suggests that strategic thinking is critical to organisational viability, yet little attention is placed on higher education (HE) institutions, despite the fact that they are operating in a super VUCA (volatile, uncertain, complex and ambiguous) environment. Despite the growing literature, there is still a lack of strategic thinking within organisations. Addressing the theory-praxis gap requires alternative perspectives. In this study, I develop a new perspective of strategic thinking that goes beyond conventional modelling, and therefore contributes to the theory of strategic thinking in general, and the development and implementation of enrolment strategy.

The research context is public universities in post-apartheid South Africa (SA) where public universities have undergone numerous enrolment transformations. Universities have been under severe fiscal constraints since 2017 when violent student protests emerged. In this landscape and under these circumstances, strategic action is generally theorised as being vital to institutional survival.

In this empirical qualitative study, I have investigated strategic thinking from the perspective of an individual strategic thinker. A total of 33 semi-structured interviews were captured, coded and analysed using thematic analysis with NVivo software.

The findings show that there is a distinct flow from development into implementation of enrolment strategy and that the strategy context is shaped in three levels - the individual, organisation and national. There are three corresponding binary realities including an overarching complexity and ubiquitous emergent behaviour that has largely not understood. Individuals who are performing strategic thinking need to re-orientate themselves via a number of ontological shifts, accomplished through process, methodological, dialectical and complexity shifts. Ultimately, strategic thinking in development and implementation of enrolment strategy requires an overall shift in a person's mindset towards being more conscious of their own and other's limitations. In other words, strategic thinking requires cognisance of people as essential parts of the development and implementation of enrolment strategy system.

Table of Contents

List of Figures

List of Tables

1 Introduction

Despite strategic thinking existing for over a century (Freedman, 2013), little attention has been extended to higher education (HE) institutions (Pisapia, Townsend & Razzaq, 2017), even with the super VUCA (volatile, uncertain, complex and ambiguous) environment. The landscape faced by HE organisations has become difficult and competitive (Naidoo, 2016; Powell, 2020), which is concerning since there is a plethora of literature suggesting that a lack of strategic thinking could be detrimental to organisational success and viability if there is no adaptation to the environment (Mintzberg, 1994; Goldman, Scott & Follman, 2015; Sahay, 2019). It is thus imperative to continue to extend strategic thinking research to HE organisations, like universities. Although there has been a growth in literature on strategic thinking, a lack of strategic thinking is still evident in many organisations (Shivakumar, 2014). Addressing the theory-praxis gap requires alternative perspectives of strategic thinking that consolidate and strengthen strategic thinking. Moreover, distinguishing between various strategic thinking perspectives provides a vital tool for those in management (Fairholm & Card, 2009; Sloan, 2020).

In this empirical qualitative study, I have investigated strategic thinking from the perspective of an individual strategic thinker. I develop a new perspective of strategic thinking that goes beyond conventional modelling, and therefore contributes to the theory of strategic thinking in general, and the development and implementation of enrolment strategy.

The research context for the study is public universities in post-apartheid South Africa (SA) which have undergone numerous enrolment transformations from 1994 onwards (the post-apartheid period). With the drastic change from apartheid to democracy, a number of policies and reforms were instituted to ensure that the inequities of the past were eradicated. In higher education, a significant policy focus was affording equal access to higher education in relation to those who had been previously disadvantaged (CHE, 2016).

The critical factors in higher education were able to align enrolment with resources that were available at the national level and to national human resource needs (NPC, 2010). National priorities were thus embedded as a part of the enrolment planning process. The underpinning agenda of the national enrolment policies were to change higher education so the system could

be managed in a coordinated way to ensure the quality and sustainability (mainly in relation to resource optimisation) of universities, and meet the countries' expansion plans (DHET, 2014). At the same time, increasing the participation rate of previously disadvantaged groups was a key factor. Planning became one of the prominent responses to meeting the national progress indicators. Emphasis is placed on controlling "the size and shape" of the system, to guard against any lapses in coordination at universities when managing enrolment (DHET, 2005:3). Three steering instruments, namely planning, funding and quality assurance were set as determiners, and these were effected in different ways.

A major event at universities that changed the enrolment landscape occurred towards the latter part of 2015. Known as the "Fees Must Fall" (FMF) movement, the student protests became violent at some point, and several security measures had to be implemented (Sempijja & Letlhogile, 2020). The general consensus on the central driver of the protests was that tuition fees had escalated beyond affordability of the majority of students. There was a variety of often contradictory responses from the national level, vice-chancellors and students (Habib, 2019). Blame was apportioned to various role players – government blamed universities and vice versa; students blamed universities and targeted their campaign at universities. The student protests eventually prompted the government to concede to adopting major improvements and allocating more funding in the national funding scheme (Hodes, 2016).

The contestation in relation to the funding of universities was as a result of the proportion of funding allocated by the government to universities; it increased by only 0.04% over 11 years from 2005 to 2016, despite much higher levels of inflationary costs, which does not compare well internationally and in the continent. The tension between government and universities increased substantially when the government responded to the student protests by announcing a zero fee increase and, subsequently, that the national funding scheme would allocate the funding directly to students (Ndelu et al., 2017).

In this landscape and under these circumstances, strategic action is generally theorised as being vital to institutional survival. Thus, SA universities provide a suitable context where it is imperative for individuals to perform strategic thinking.

In conclusion, in the SA context, there is a lack of a consistent definition of 'enrolment', yet there is a clearly target-driven, planned approach to ensuring that enrolment goals are met. Thus, SA universities provide a suitable context where it is imperative for individuals to perform strategic thinking.

In this introductory chapter, I begin by setting the scene for my study by providing an orientation and summary of the rationale, an outline of the research questions and objectives, a description of the significance of the study, the context of the study, and an outline of the way in which the thesis is structured.

1.1 Rationale

My study heeds the call by Nel (2016:105) to investigate models of strategic thinking that can guide universities in an environment of uncertainty and paradox. As an experienced practitioner and researcher at a South African (SA) university, Nel is familiar with the uneven terrain that confronts universities and points to qualitative methods such as "observation and reflection" to be included as a means when developing strategy. I respond to her call through this empirically-based, qualitative study that is grounded on the individual.

In addition, the Council on Higher Education (CHE), in their comprehensive yet broad review of HE in SA, refer to the innovative aspect of the process of enrolment planning although the document lacks a critical appraisal of what this innovation means (CHE, 2016). In my study, I attempt to develop a strategic thinking perspective that introduces new ideas, is original and creative, introduces new methods, and is in one sense, novel.

I draw on the deliberations of Hambrick (2004) who raises concerns about the limitations in strategic management research where parallel perspectives evolve alongside one another without any intersections to give rise to a multi-dimensional perspective. He calls for consolidation and integration between the strategy content and process research, and a re-establishment of the human element. Hambrick (2004) further emphasises the need to acknowledge and include human characteristics such as limitations, diversity of views and partialities. These comments shape the overarching human-focused approach used in my study.

Apart from Hambrick's (2004) reflections, there are other gaps that the strategic thinking literature face, such as:

- Continued ambiguity, lack of **clarity and consolidation** in relation to the definition of 'strategic thinking';
- Narrow and prescriptive view of **purpose and measures of success**;
- Scarcity of **methodological novelty**;
- Lack of **stratified approaches** when considering context and different levels; and
- Limited to being **relevant exclusively to leadership**.

Clarity and consolidation

There is still confusion surrounding the definition of 'strategic thinking' and the boundaries between strategic thinking and strategic planning (Goldman et al., 2015). Ambiguity from a theoretical standpoint is partly as a result of a lack of theoretical grounding (Jelenc & Pisapia, 2016). Goldman (2012) attributes the disjuncture to the fact that people are unable to grasp an overall view of the concept, and there is still ambiguity between strategic thinking and strategic planning. Despite numerous attempts over the last few years at conceptualising strategic thinking, there is still a lack of clarity and the gap between theory and practice remains. Moving towards more integrated and realistic strategic thinking perspectives is imperative.

Purpose and measure of success

Generally, studies are underpinned by the dominant, fixed, top-down view of strategy, according to which, improving the performance of an organisation is the main goal (Hamel & Prahalad, 1993; Porter, 1996). Greckhamer (2010) argues that this underlying assumption of competitive advantage and economic success should be questioned to avoid a bias towards a prescriptive, narrow understanding of strategic thinking.

Methodological novelty

The majority of strategic thinking studies are focused on the organisation as the unit of analysis, but in my study, I adopt an action-oriented, human-centred approach and consequently view strategic thinking as something people do rather than something an organisation has (Jarzabowski, 2005). I therefore shift focus onto people as the unit of analysis rather than organisations, and thus chose to work with qualitative data, collected using interviews. There

are numerous theoretical strategic thinking models in the literature, for example, by Liedtka (1998), Bonn (2005) and Pisapia and Robinson (2010), yet there is a shortage of empirically-based models (Pisapia & Robinson, 2011). My study utilises an empirical approach.

Relevant exclusively to leadership.

Many researchers restrict their investigation of strategic thinking to the top levels of the organisation, but increasing attention is also given to "managers at multiple organizational levels" (Casey & Goldman, 2010:167) because middle managers have a significant effect on the processes of strategic thinking (Rouleau & Balogun, 2011); strategic thinking is important for middle managers (Thakur & Calingo, 1992; Van Rensburg, Davis & Venter, 2014; Roper & Hodari, 2015; Jarzabkowski, Kaplan, Seidl & Whittington, 2016b). My study thus extends strategic thinking to the levels below leadership.

Stratified approaches

Some studies do interview strategic thinkers but in a manner that neglects context (Nuntamanop, Kauranen & Igel, 2013). The majority of literature on strategic thinking is located from a corporate context, but few focus on other contexts (Pisapia & Robinson, 2010). However, over the last decade or so, Pisapia and Robinson (2010), have developed a focus on strategic thinking at universities. The university context has become a performance managed and measured domain that has changed the nature of university planning and decision making (Tomlinson, Enders & Naidoo, 2018). As such, the university context is considered to be appropriately aligned to the aim of this study. In the literature, Bonn (2005) considers strategic thinking using a multi-level framework that includes three levels: the individual, group and organisation, but it is a conceptual model.

1.2 Research Questions

In my study, I aimed to develop a strategic thinking perspective that can strengthen an individual's strategic thinking capability within an organisational context. My focus was on how individuals working in the development and implementation of enrolment strategy can improve their strategic thinking capability, which will, in turn, improve the strategic thinking capability at universities. Liedtka (1998) argues that studies on strategic thinking must consider organisations as holistic entities, influenced by internal and external factors. This assertion is based on the fact that organisations are systems so connections and processes must be viewed

from a holistic lens (Midgley, 1996; Ackoff, 1999; Flood, 1999; Jackson, 2003; Gharajedaghi, 2011). Placing attention on a holistic perspective also ensures that the central themes of "meaning and purpose" are the basis for developing an organisation's approaches (Fairholm & Card, 2009:18). Ultimately, people must be considered when performing strategic thinking because "…unless organizations are willing to get rid of the people", better viewpoints will need to be developed (Mintzberg, 1994:13).

Strategic planning is popular in HE, but there is little literature globally that deals with strategic thinking in HE, and even less in SA. Generally, studies are underpinned by the dominant, fixed, top-down view of strategy; accordingly, improving the performance of an organisation is the main goal (Hamel & Prahalad, 1993; Porter, 1996). However, in my study I adopt a human-centred approach (Whittington, 1996; Jarzabkowski, 2003) where strategy is action-oriented and human-centred – something people do rather than something an organisation has (Jarzabowski, 2005).

Research on HE in SA spans across an array of areas including policy, pedagogy, and transformation, as well as teaching and learning. By comparison, only a few studies have focused on aspects connected to enrolment strategy (see Pillay, 2010; Kongolo, 2012; Daniels & Linda, 2014; Imenda & Kongolo, 2016), and there are no studies that make a direct connection between strategic thinking and enrolment strategy.

Lastly, the context within which SA universities are located is marked by high levels of complexity and uncertainty. While SA universities face specific circumstances, generally speaking, all universities have to manage a complex and uncertain landscape. Moreover, strategic thinking in enrolment is critical, irrespective of the location as all universities make decisions that determine the size and shape of the student population. Thus, the conclusions of my study can be broadly applied to universities in general. My study will be significant in both building the literature on strategic thinking at universities as well as providing insight into enrolment strategy.

The main research question was: **What holistic strategic thinking perspective can enhance enrolment strategy at universities?** The objectives of the study were thus as follows:

- Understand how strategic thinking is utilised in the development and implementation of enrolment strategy;
- Identify the common issues faced by individuals who perform strategic thinking in the development and implementation of enrolment strategy; and
- Establish the key components of a holistic strategic thinking perspective that can enhance the development and implementation of enrolment strategy at universities.

In the next section, I discuss the significance of my study.

1.3 Significance and Contribution of the Research

This study contributes to strategic thinking research when utilised in the development and implementation of strategies in any organisation. There are three overarching theoretical contributions that are significant. These relate to the fact that complexity perpetuates in the development and implementation of strategy; that varying perspectives (individual, organisation and national) at different levels are significant and must be taken into account; and ontological shifts are required in strategy development and implementation in order for the studies on strategic thinking to remain relevant. The main ontological shift is towards human-centredness, which is supported by methodological, dialectical, complexity and process shifts.

In relation to HE organisations, globally, HE is increasingly being considered a marketable commodity that builds skilled human capital towards economic gains (Kitamura, 1997; Organisation for Economic Cooperation and Development (OECD), 2008a; Naidoo, 2011; Shields, 2013). It is therefore expected that policies guiding HE organisations such as public universities have gained significant traction (Phoenix, 2003). Indeed, the policies that relate to HE are considered an essential component of a nation's policy suite (Bell & Stevenson, 2006). Within these policies, student enrolment often acts as a critical funding lever through subsidies and tuition (OECD, 2015).

Jansen (2001), however, raises concerns that symbolism embedded within policies in the post-apartheid era in SA retards policy implementation more than resources or capacity by providing more rhetoric than action. This exaggeration in policies is not restricted to SA; De Boer, Enders and Westerheijden (2005:99) indicate that "missionary declarations" can occur in various policies. Policies can also be vague, possibly intentionally, to provide overarching direction as

opposed to specific targets (Matland, 1995; Anderson, 2003). The symbolism and missionary statements that guide enrolment at universities in SA are mainly geared towards ensuring access to previously disadvantaged population groups. There have already been concerns that enrolment expansion in Africa, without the required fiscal scaffolding, could lead to compromised quality of HE (Cloete & Wangenge-Ouma, 2008; Bloom, Canning & Chan, 2014; Bokana, 2015). Strategies related to enrolment are therefore of great significance because it acts as a pivot for funding as well as transformation goals.

Research on HE in SA spans across an array of areas but by comparison, only a few studies have focused on enrolment directly (see Pillay, 2010; Kongolo, 2012; Daniels & Linda, 2014; Imenda & Kongolo, 2016), and to my knowledge, none of these has focused on strategic thinking. This study will be significant in both building the literature on strategic thinking capacity in general and providing insight into enrolment strategies' development and implementation.

1.4 Overview and Structure of the Thesis

This study comprises of seven chapters, starting with this introduction chapter that introduces the rationale, research question and objectives and significance of the study. Below, I provide a summary to guide the reader on the chapters that follow and offer a brief summary per chapter.

Chapter 2 presents a review of the extant literature on strategic thinking that shaped my study. It begins with a concise description of research related to strategy in order to illustrate the connection between strategy and strategic thinking. This is followed by an in-depth analysis of specific areas that are related to how my study was developed and includes a discussion on the definitional ambiguities, strategic thinking in deliberate and emergent strategies, the purpose and measures of success in strategic thinking, and the difference between strategic thinking and strategic planning. I then consider a key component in strategic thinking, namely, systems thinking, and then move to various conceptualisations of strategic thinking, ending with an overview of why it is important to investigate individuals and emotions in strategic thinking. I also focus on strategic thinking in public universities and end with an overview of strategic thinking in SA public universities.

In Chapter 3, I present the research methodology and methods. I begin with the research philosophy upon which the study was built and the research approach that I took, namely qualitative research. Thereafter, I provide the basis for the sampling used in the study and illustrate the layered process I used when I sampled both organisations and individuals. Next, I provide an analysis of the various participants, followed by the three techniques and procedures used in the study, namely a pilot study, 33 semi-structured interviews, and metaphor analysis. I then include a description of how I collected the data and a brief outline of the lessons learnt in the process. Data management procedures and techniques are also discussed. The chapter ends with a detailed description of the ethical procedures that were followed in the study and emphasises the validity and reliability of the study.

Chapters 4 begins with a description of the employed data analysis strategy and tools. The data structure and thematic analysis are discussed, illustrating how the collapsing of the quotations led to 56 first-order categories, 15 second-order themes and finally, seven aggregated conceptual dimensions. This is followed by a discussion on the findings that continue into the next two chapters, namely Chapters 5 and 6. Each of these chapters corresponds to a specific level, namely the individual, organisation and national, respectively. This layered approach delivers an infrastructure that considers each level narrowly.

In the final and seventh chapter, I present the multi-level infrastructure, combined and synthesised into the model of a holistic perspective of strategic thinking in the development and implementation of enrolment strategy. I discuss each construct of the model. The thesis concludes with an outline of the various limitations in the study and suggestions for further research.

In the following chapter, I begin with a review of relevant literature.

2 Literature Review

2.1 Introduction

In this chapter, a review of relevant literature is provided. To start, I highlight key points on strategy in order to establish how strategy and strategic thinking are connected. This is followed by an in-depth examination of strategic thinking that includes various sub-sections to understand the major threads that shaped my study. I begin with definitional ambiguities and explain strategic thinking in deliberate and emergent strategy. Thereafter, I reflect on the purpose and measures of success in strategic thinking and the challenge of the ambiguity between strategic planning and strategic thinking. I then introduce a key feature in strategic thinking, namely systems thinking, which is followed by the different conceptualisations of strategic thinking in the literature, ending with how emotion has been introduced in strategic thinking research. In the last two sections, I introduce the notion of global drivers of strategic thinking in HE and the relevance of strategic thinking to universities. I end with a structural framing that I gleaned from the literature review.

2.2 Strategic Thinking and Strategy

Coupled with the uncertainty of the environment is an intensely competitive landscape where organisations are considered to survive only through concerted and conscious effort (Kleiner, 2011). Researchers examining strategy have attempted to adjust different theoretic frameworks to try to explain strategic issues that are complex (Hoskisson, Hitt, Wan & Yiu, 1999). Indeed, navigating the literature on strategy and strategic thinking is complex terrain.

At the most basic level, strategic thinking can be considered in a literal sense as the combination of the two words – ‘strategic’ and ‘thinking’ but Malan, Erwee and Rose (2009) pursue a grouping of ‘strategy’ and ‘thinking’, presumably because the roots of ‘strategic’ lie in the concept of strategy (Shivakumar, 2014). Originally, strategy referred to the thinking performed to win a war and thus has connotations of survival (Strachan, 2005; Haycock, Cheadle & Spence Bluestone, 2012; Freedman, 2013; Wolters, Grome & Hinds, 2013), but the word has become analogous to anything that is important or involves a special plan (French, 2009; Freedman, 2013).

Boundaries between strategy-related terminologies are unclear (French, 2009) and these concepts are often used interchangeably in the literature (see Kotler & Murphy, 1981; Dooris,

Kelley & Trainer, 2002; Cowburn, 2005; Delprino, 2013). Differences in definitions without a distinction may be beneficial for theoretical debates but not in terms of pragmatic relevance (Fairholm & Card, 2009).

Two distinct areas in strategy research are strategy content and strategy process (Dess & Lumpkin, 2006). There is far more literature on strategy content with the aim of improving the performance of an organisation as opposed to the strategy's process (Mirabeau & Steven, 2014). In my study, I adopt a broad view of strategy to consider it holistically; splitting strategy content and process hinders research (Dess & Lumpkin, 2006).

Freedman (2013:x-xii) argues that strategy is "the art of creating power", which is generally accomplished by "thinking about things in advance in relation to one's goals and capacities". This provides an original basis for understanding the roots of strategic thinking as a mechanism through which strategy manifests. Strategic thinking injects agency into strategy and thus, there is a tight connection between the actions and processes. Environmental complexities and pace of change are indeed seen as drivers (Hoskisson et al., 1999). Leaders who are able to employ strategic thinking are cited as essential in avoiding organisational difficulties (Taylor, Machado & Peterson, 2008; McNamara, 2010; Palaima & Skaržauskienė, 2010), and strategic thinking is therefore regarded as a core element of leadership.

One of the critical characteristics of strategy, as described by Strachan (2005:36), is that strategy require an understanding of the "whole operations". It is through understanding the whole that choices can be made. In other words, strategic thinking involves having a grasp of the whole organisation or process. This is an essential theoretical component that underpins my study – that a holistic perspective is critical to strategic thinking.

2.3 Strategic Thinking

The extensive research on strategic thinking is driven by an attempt to identify attributes, skills and abilities required for strategic thinking (Monnavarian, Farmani & Yajam, 2011; Nuntamanop et al., 2013). Some develop a strategic thinking mindset by refining, aggregating or looking at these attributes from different perspectives or through different theoretical lenses . Others identify basic components of strategic thinking (e.g. Liedtka, 1998), focus on how strategic thinking can be developed (Casey & Goldman, 2010) or the organisational dynamics

that either promote or inhibit strategic thinking (Goldman & Casey, 2010a; Goldman, 2012; Goldman et al., 2015). There are also studies that seek to provide clarity on the terminology connected to strategic thinking (French, 2009) and clarifications on the boundaries between strategic thinking, strategic planning and strategic management (Heracleous, 1998; Graetz, 2005) in the pursuance of a definition of strategic thinking. Although the above studies provide valuable insight into strategic thinking, most are conceptual studies.

The different schools of thought concerning strategy influence the interpretation of strategic thinking (Jelenc & Pisapia, 2016). Paroutis and Pettigrew (2007:110) categorised seven types of managerial activities that are performed when strategising, namely 'executing, reflecting, initiating, coordinating, supporting, collaborating, and shaping context'. It is surprising that thinking is not mentioned as an activity. However, it can be argued that reflection and initiation are incorporated within thinking (Clarà, 2015). Consequently, thinking about strategy or strategic thinking can be deemed a key managerial or leadership activity.

In the literature, strategic thinking is considered essential; arguably the most important form of thinking in organisations (Blair, Fottler, Ford & Tyge, 2007; Moon, 2013; Shouxiang, Xichao & Yafen, 2013; Boyd, Clark & Kent, 2017; Davies & Ribaut, 2017). Leadership in a public organisation is considered to be the effective running of the organisation and strategic thinking is essential to this role (Bryson, 2018). However, there are formidable challenges and pressures on those individuals who are responsible for the development of strategy (Wolf & Gering, 1998).

Irrespective of the conceptualisation category or level of strategy, strategic thinking involves making changes to the status quo, and consequently, decision making (Bonn, 2005). Camillus (1996) similarly positions strategic choice as being at the heart of strategy. Strategy and effective strategic decision making are thus inextricably connected (Calabrese & Costa, 2015).

Much of the strategic thinking literature regards strategic thinking as a key competency in leaders (Nuntamanop et al., 2013; Gross, 2016; Norzailan, Othman & Ishizaki, 2016) and some consider poor leadership strategic thinking skills as a prediction of failure of an organisation (Barrow, 1977; Linkow, 1999; Henkel, 2011; Sloan, 2013; van der Laan & Erwee, 2013). The success or collapse of organisations is thus viewed as being completely dependent on the leadership competency in strategic thinking, yet this is generally assessed retrospectively. In

this sense, strategic thinking has taken on a state of essentiality for leaders, in particular, and a vast amount of literature on strategic thinking is focused on leadership and continues with a narrow perspective that focuses on 'either-or' outcomes, such as success and failure.

I now turn to the definitional ambiguities evident in the strategic thinking literature.

2.3.1 Definitional ambiguities

The various interpretations of strategy provoke ongoing debate amongst scholars within the broad frame of organisational studies. To some extent, the debates reflect the ambiguities of 'strategy' as a noun and a verb. Strategy is thus considered both as an object – often in the form of a plan – and an action (French, 2009a). In other words, there is strategy and strategy making (Heracleous, 1998; Goldman, Scott & Follman, 2015).

While it is considered a key competency for leaders and essential for organisations, there is much deliberation and debate on the definition of 'strategic thinking', which is an elusive and confusing concept (Jelenc & Pisapia, 2016). There is no unanimous definition of the term; in fact, there are a number of definitions, interpretations, understandings, debates and perspectives (Fairholm & Card, 2009; Goldman & Casey, 2010b; Sloan, 2013; Afrassiabi & Mohammadabadi, 2014; Silva & Mousavidin, 2015; Muriithi, Louw & Radloff, 2018). The plethora of meanings is prone to over-utilisation, misapplication and broad confusion (Weyhrauch & Culbertson, 2014; Jelenc & Pisapia, 2016). Nuntamanop, Kauranen and Igel (2013) argue that there is a disparity between the meaning and characteristics of strategic thinking. Others concur that there is a lack of classification, emphasising the need to gain clarity (Sloan, 2013).

Another problem related to the definition of strategic thinking is the dilution of the term 'strategic thinking' as "a synonym for almost all the concepts that have strategic as their first word" (Jelenc, Pisapia & Ivanusic, 2016:14). Moreover, the literature points to a lack of strategic thinking theory, but some consider the lack of theory understandable in light of the difficulty in measuring strategic thinking (Jelenc & Pisapia, 2016; Muriithi et al., 2018). Despite the challenges, there are calls for definitional development (Weyhrauch, 2016) and the categorisation of differentiated perspectives (Fairholm & Card, 2009).

French (2009) argues that strategic thinking is prone to disintegration because the exact definition is unclear. The types of decisions that require strategic thinking must be differentiated in order to ensure that the focus is strategic thinking, not operational thinking. Strategic decisions are viewed as a means to cope with high levels of uncertainty and complexity by introducing significant changes in the scope of organisations involved (Zabriskie & Huellmantel, 1991; Gerry Johnson, Scholes & Whittington, 2008). Nuntamanop et al., (2013) harness differences between strategic and operational decisions from Mintzberg (1994a, b:381-382) and Hanford (1995), as captured in Table 1.

Table 1: Differences between strategic and operational decisions (Nuntamanop et al., 2013)

Strategic	Operational
Longer term	Short term
Conceptual	Concrete
Reflective/ learning	Action/doing
Identification of key issues/opportunities	Resolution of existing performance
Breaking new ground	Routine/ongoing
Effectiveness	Efficiency
Hands-off approach	Hands-on approach
Helicopter perspective	On the ground perspective

There is concern over the fact that various types of decisions such as strategic, tactical and operational decisions are often conflated when developing strategy (Shivakumar, 2014). Strategic thinking is performed to develop a strategy by making strategic decisions (French, 2009). In the process of strategy development, therefore, it is essential to distinguish between strategic decisions and other types of decisions. Thus, clarification on which decisions are actually strategic decisions is a critical starting point when performing strategic thinking to develop a strategy. A strategic decision is difficult to reverse as it involves high levels of commitment and change (Shivakumar, 2014). That is, when strategic decisions are made in the development of a strategy, there are significant implications and once such decisions are made, it creates a particular trajectory for the organisation as a whole and has consequences for all the operations of the organisation.

Despite the various theoretical contributions distinguishing strategic and operational decisions, Shivakumar (2014) highlights that there is still continued confusion. However, what is concerning is the examples of organisations that, to their detriment, have conflated operational and strategic decisions. Clarity on what strategic decisions are is therefore critical, otherwise, organisations may make this costly mistake. Strategic decisions are those decisions that involve significant changes to both scope and commitment, and are critical to organisational survival and performance in the longer term (Rozenzweig, 2013).

2.3.2 Strategic thinking in deliberate and emergent strategy

A strategy's development has two distinct processes – strategy development or formulation, and strategy implementation (Hrebiniak, 2006). There are both motivating parts and discouraging parts in the work of a strategy's formulation and implementation (Whittington, 1996). Baumgartner and Korhonen (2010) agree that strategy content and strategy process, when taken together, provide a holistic view. However, they provide an additional area that has relevance for strategic thinking, namely strategy context – the environment and stakeholder views that include the "cultural context, the political context, the regulatory context and the market context under which the work must be performed" (Baumgartner & Korhonen, 2010:74). The intersections of strategy content, process and context are shown in Figure 1.

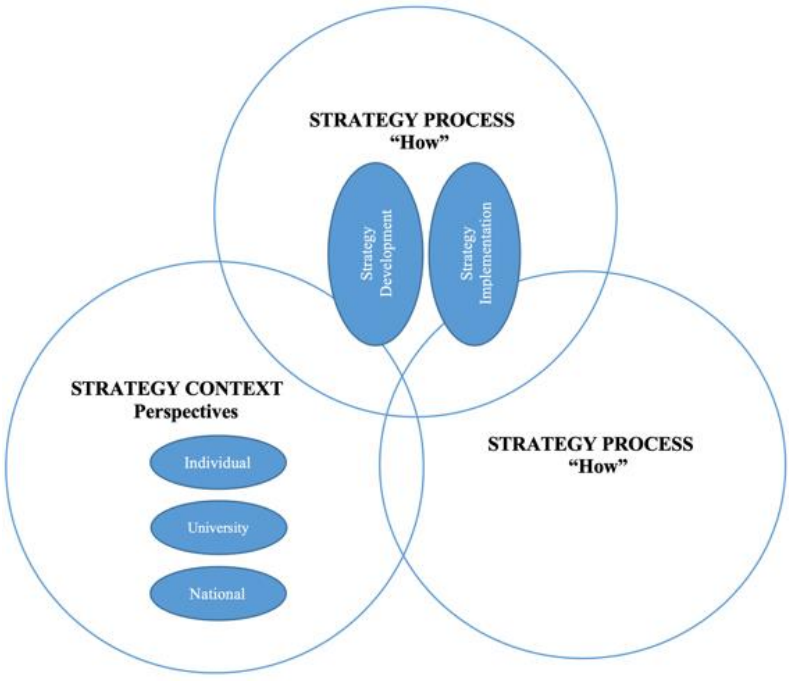


Figure 1: Areas that are relevant to strategic thinking

In application, strategy is frequently confused with a mission statement, vision and goals (Shivakumar, 2014). Others consider the multi-dimensional and ambiguous nature of strategy research as a way in which researchers navigate the complex research field (Chaffee, 1985; Mintzberg, 1987), creating a "rich" space containing distinct, tension-filled ideas that refine our understanding of strategy (Dameron & Torset, 2014:293). Notwithstanding the contrasting understandings of strategy and related terminology, there is consensus that strategy is a prerequisite to enabling future survival of organisations (Mintzberg, 1978; Hamel & Prahalad, 1989; Porter, 1991; Jarzabkowski & Spee, 2009).

Many definitions of 'strategy' tend to fall within either a deliberate or planned strategy (Mirabeau & Steven, 2014). A classic deliberate but action-oriented definition by Porter (1991) positions strategy as the process that occurs when an organisation aligns with pressures of the environment, whereas Johnson, Scholes and Whittington (2007) provide a more nuanced definition by extending Porter's definition. They concur that strategy is a means to adjusting to shifts in the environment but expand on how the adjustments are made and the reasons for making the adjustments.

The deliberate, proactive stance that regards strategy supports a planned approach. However, planning is often flawed, especially in the volatile, unpredictable and uncertain landscape faced by organisations (Horney, Pamore & O'Shea, 2010). Frequently, the implementation of strategy yields a different outcome to a plan. In contrast, therefore, Mintzberg (1978) puts forth an emergent view – that strategy develops in an incremental fashion, mostly retrospectively. These divergent views are joined in an inclusive definition by Mintzberg and Waters (1985) who describe strategy as a pattern of deliberate and emergent actions or a continual range of actions within two distinct boundaries. On the one end, there is deliberate action while at the other, there is adaptability; organisations determine which approach is warranted.

I use an inclusive, emergent view of strategy because it is inclusive of the planned strategy view and therefore presents a wider scope for exploration of the phenomenon (Casey & Goldman, 2010). In particular, for my study, when engaging in the development and implementation of enrolment strategy, both views are necessary since strategic enrolment goals must be rooted in the strategic planning process. However, in my experience as an enrolment planner, the actual enrolment process frequently differs from the plan, and real-time emergent outcomes require immediate strategic thinking as decisions need to be made. Strategic thinking

will thus be employed as a proactive, planned measure or in response to emerging circumstances or events.

Ultimately, deliberate or emergent realised strategy is produced by the actors in an organisation. Mintzberg and Lampel (1999) argue that strategy formation must be dealt with as a whole rather than focusing on the separate parts, which means that both deliberate or intended and emergent processes must be considered when examining strategic thinking. Further, Mintzberg (1978) presents a framework that shows the relationship between the different types of strategy – intended, emergent, realised and unrealised, as illustrated in Figure 2.

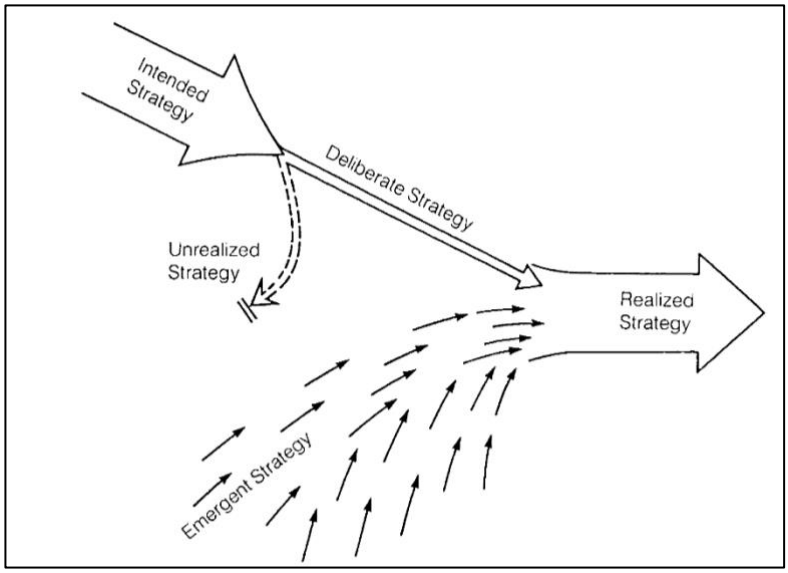


Figure 2: Deliberate and emergent strategy (Henry Mintzberg, 1987)

When the above is applied in my study's context – enrolment strategy – Figure 3 is obtained. The realised strategy becomes the blending of the enrolment targets submitted to the government and the emergent strategy at the beginning of the year that occur predominantly during the registration period.

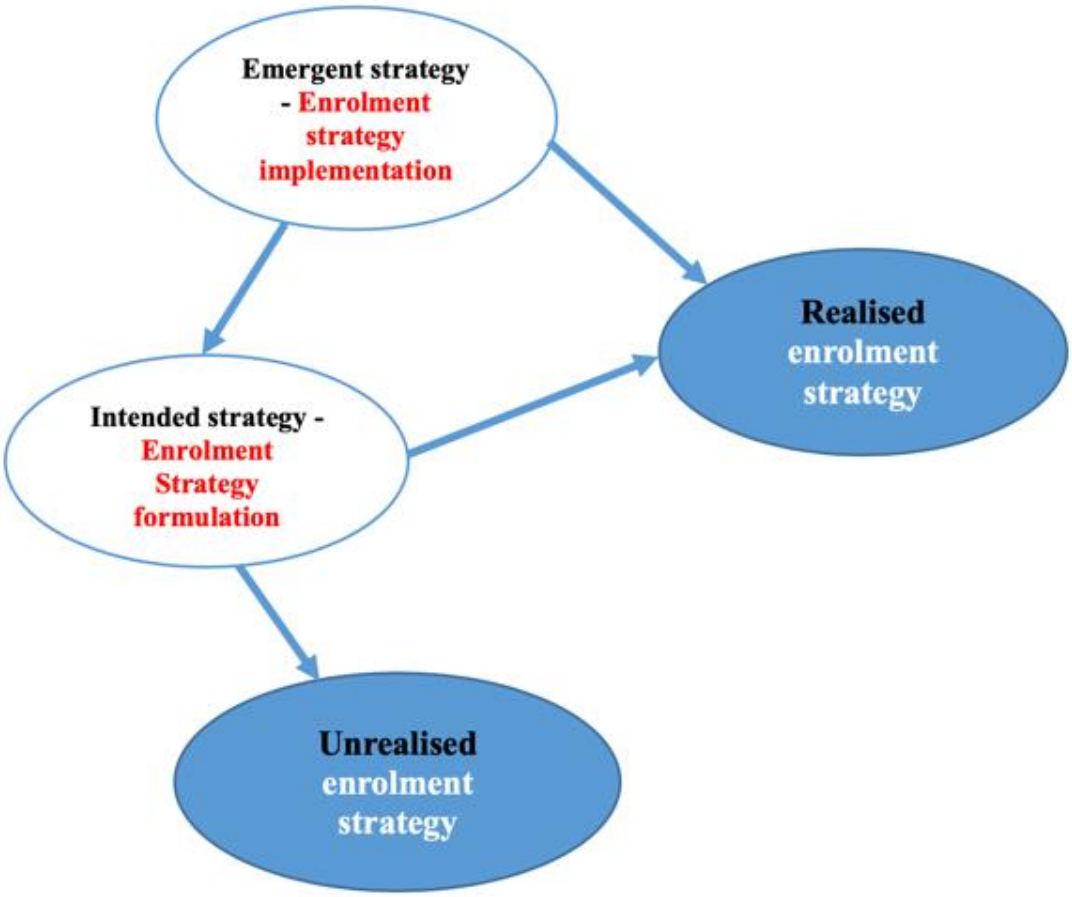


Figure 3: How the enrolment strategy is realised (adapted from Mintzberg, 1994)

As research on strategy progressed, the emphasis on strategy as something that organisations possess continued, neglecting the agency of what members in an organisation actively do to achieve the strategy (Johnson, Langley, Melin & Whittington, 2007). Nevertheless, space was created for the pragmatic 'Strategy as Practice' (SAP) approach that examines the micro-level of how people 'do' strategy in organisations and how context influences them (Johnson et al., 2007; Jarzabkowski, Kaplan, Seidl & Whittington, 2016b). Typically, the dominant view of strategy has emphasised performance outcomes, but in SAP, strategy is viewed through the lens of practitioners and practices involved in strategy (Balogun & Johnson, 2005). Although my study does not use an SAP framework, I do probe the micro-level, namely the individual, their contribution, perceptions and how they make sense of strategic thinking. The broad definition of 'SAP' confirms that it is individuals who 'act' and 'think', and such practices cut

across any phase of strategy making, planning, thinking or implementation (Golsorkhi, Rouleau, Seidl & Vaara, 2010:1).

Considering strategy from a practice lens represents an "ontological reversal" from viewing strategy as a fixed, predictable, top-down perspective that lacks agency (Jarzabkowski & Kaplan, 2010:53). There are three core components – praxis, practices and practitioners – which together form the act of strategising. In my study, I refer to the interviewees as strategic thinking practitioners.

Another popular theoretical framework used in studies on strategic thinking, but not within the scope of this study, is game theory. In game theory, theories of mathematics are used to model rational decision making in individuals performing a task (Crawford, Costa-gomes & Iriberri, 2013) with those performing strategic thinking regarded as 'players' who determine the next 'move' in the 'game' of strategy (Mintzberg, 1978; Silva & Mousavidin, 2015). While I concentrate on the individual and consider how strategists think, the steps and decisions taken, and the related factors, my study does not fall within an SAP or game theory perspective. Rather, my study is related to strategic thinking as an individual's cognitive capability; in other words, individual strategic thinking within the context of the organisation. According to Steptoe-Warren et al., (2011), there is a need to identify and validate the capabilities involved when individuals perform strategic thinking. Moreover, one aspect of strategic thinking on which there tends to be agreement is the purpose and measures of success in relation to strategic thinking. In the next section, I delve into this topic.

2.3.3 Purpose and measures of success of strategic thinking

The majority of literature on strategic thinking is generally directed towards obtaining positive economic outcomes for organisations. Weyhrauch and Culbertson (2014) refer to a 'successful' strategic thinker. The implication is that the opposite is a 'bad' or 'unsuccessful' strategic thinker, which raises various questions since the assessment of strategic thinking is generally retrospective and based on results.

Typically, strategic thinking is a means of developing strategy that improves market position (Porter, 1991) or resource capability (Peteraf, 1998), but generally, all views of strategy are based on a model of economic growth and market share (Reed & DeFillippi, 1990; Malan,

Erwee & Rose, 2009; Moon, 2013; Calabrese & Costa, 2015; Goldman et al., 2015). The underlying assumption of competitive advantage is the goal of strategic thinking (see Liedtka, 1998; Peteraf, 1998; Stacey, 2007; Haycock et al., 2012; Shivakumar, 2014; Calabrese & Costa, 2015; Halevy, 2016); competitive advantage means improving organisational performance relative to competitors (Reed & DeFillippi, 1990). Greckhamer (2010) argues that this underlying assumption – that a goal of strategic thinking is competitive advantage and economic success – should be questioned to avoid a bias towards a prescriptive, narrow understanding of strategic thinking.

If competitive advantage is the purpose, then comparison against competitors is considered the success metric of strategic thinking (Abraham, 2005). Brøgger (2016:87) explains that comparisons in performance create a "peer-pressure ontology" that sustains a competitive system. The competitive, performance-based framework of strategic thinking thus perpetuates itself. The measure of success, in the vast majority of strategic thinking literature, is exploiting opportunities for profit or protecting the organisation through growth in revenue compared to competitors (Zabriskie & Huellmantel, 1991; Thakur & Calingo, 1992; De Wit, Meyer & Heugens, 1998). In order to maintain competitive advantage, strategic thinking involves establishing organisations as unique and irreproducible (Reed & DeFillippi, 1990; Abraham, 2005; Malan, Erwee & Rose, 2009; Moon, 2013; Goldman et al., 2015), thus any ambiguity that obstructs imitation is encouraged (Reed & DeFillippi, 1990).

While the literature promotes competitive advantage as the purpose of strategic thinking, the process is simultaneously considered to be context-dependent (Liedtka, 1998), which raises a contradiction. The embedded assumption of competitive advantage may not be aligned to the purpose of organisations located within certain contexts and therefore the purpose of strategic thinking needs to be questioned. A competitive culture could potentially stimulate antagonism between departments and block information sharing, thereby creating silos that cause fragmentation; what Jackson (2006:649) refers to as "sub-optimisation".

Albeit far fewer, there are various counter-movements to the mainstream thinking that competitive advantage based on economic growth should be used as measures of success in organisations. For instance, Singer (1994) argues that ethics could be an alternative to profit maximisation as the goal of strategy. Huffington (2015) claims the wellbeing of employees should be a success metric. Research on alternative organisational practices such as

mindfulness and organisational attention to promoting employee wellbeing has also grown considerably in organisation and management studies (Weick & Sutcliffe, 2006). Another alternative metric is put forward by Fioramonti (2017), who contends that the narrow view of growth in terms of economic growth is dangerous and that a human and environment-centred growth model is needed. He similarly suggests that wellbeing should be a priority, extended to society at large. In order to generate clarity in strategic thinking, an understanding of the measure of success is therefore necessary.

In the following section, I discuss one of the contentious issues in the literature that relates to the difference between strategic thinking and strategic planning.

2.3.4 Difference between strategic planning and strategic thinking

There is an extensive amount of literature that clearly differentiates strategic planning from strategic thinking (see Mintzberg, 1994; Heracleous, 1998; Graetz, 2005; Goldman, 2007; Fairholm & Card, 2009; French, 2009; Lowder, 2009; Pisapia, 2010; Nickols, 2016; Dampson & Edwards, 2019). Characteristics of strategic planning are rational analysis and logic, whereas strategic thinking is about synthesis and therefore requires the ability to process information to mobilise a comprehensive picture (Mintzberg, 1994). Heracleous (1998:44) argues that strategic thinking is a type of double-loop learning, whereas strategic planning is single-loop learning. Strategic thinking is shaped by principles, ambitions and action to stimulate improved functioning (Pisapia, Jelenc & Mick, 2016). However, the lack of clarity remains (Monnavarian, Farmani & Yajam, 2011) and appears to emerge from distinct strategy schools – planned or deliberate (Steiner, 1979; Porter, 1991; Dobson et al., 2004; Cowburn, 2005) and emergent (Mintzberg, 1994; Graetz, 2005; Casey & Goldman, 2010).

One study that differentiates clearly between strategic thinking and strategic planning was conducted by Benito-Ostolaza and Sanchis-Llopis (2014). They explain that strategy development entails performing both strategic thinking and strategic planning, with the former involving creating ideas for competitive advantage while the latter involves preparing a plan to execute the ideas. Apart from a disjuncture between the goals, the outcomes are similarly different. Strategic planning offers a concrete output, often a plan with goals or targets that are based on analysis of rational data. Strategic thinking, however, implies a wider, abstract, dynamic and original perspective (Graetz, 2005; Taylor & Machado, 2006; Taylor et al., 2007;

Haycock, Cheadle & Spence Bluestone, 2012). The dichotomy gives rise to tensions that shape the overall process of strategic management (Mintzberg, 1994).

Strategic planning is prevalent, and the development of organisational strategic plans has become a standard practice across private and public organisations (Bryson, 1980). It is used as a mechanism for building and facilitating communication, consensus and commitment (Abdallah & Langley, 2014). While strategic planning is associated with "concepts, procedures, and tools", ultimately, these are used to stimulate strategic thinking (Monnavarian, Farmani & Yajam, 2011:63).

Notwithstanding the benefits of strategic planning, Mintzberg (1994:107) proclaimed the shortcomings of strategic planning, explaining that strategic planning has the tendency to be converted to strategic "programming" – an over-reliance and prescriptive application of tools resulting in a static exercise that is unable to inspire and effect strategic change. The pitfalls of planning have also been described in several other studies (see Buehler, Griffin & Ross, 1994; Frese, Mumford & Gibson, 2015). Shah (2012) contends that the environment is considered mechanistically and success through strategic plans occurs only 10% of the time. Mintzberg (1994) views strategic planning as having failed organisations, as the over-analytical style of strategic planning obscures the intuitive, creative character of strategic thinking. Furthermore, he highlights three fallacies of strategic planning, as shown in Table 2.

Table 2: Three fallacies upon which strategic planning is based (Mintzberg, 1994)

Fallacy	Description
Prediction is possible	Prediction assumes we can control events through a formalised process. Strategic thinking recognises ambiguity.
Detachment	Strategists can be detached from the subjects of their strategy; We can separate planning from doing or experience, e.g. standalone planning departments separated from those doing the doing; and iintegrates organisational activity and planning so that they inform each other.
Formalisation	The strategy-making process can be formalised; Assumes sound analysis, the creation of specific procedures, implementation of tactical control produces routine organisational outcomes.

One of the problems with strategic plans is the level of ambiguity in the text (Abdallah & Langley, 2014). The formal, structured approach to strategic planning promotes quantitative

methodologies and is often associated with targets (Pisapia, 2010; UNESCO, 2010). However, strategic planning tends to promote the notion of organised, systematic action, and Mintzberg (1994) argues that a quantitative bias does not reflect reality because a historic data snapshot lacks contextual realities or qualitative richness. The more abstraction is involved, the further away strategic planning is from everyday reality. A significant criticism extended by Mintzberg (1994) is that strategic planning neglects human limitations such as information overload.

Some regard Mintzberg's criticism as premature, arguing that strategic planning should be retained with more clarity of purpose and specificity around its boundaries (Camillus, 1996; French, 2009). Some organisations may be able to enhance strategic planning in these ways, but it is likely that others may not, particularly those that are regulated and typically requiring more bureaucracy, such as public universities.

There are researchers who attempt to reconcile strategic planning and strategic thinking through better clarification of the boundaries of concepts and identifying synergies (Heracleous, 1998; Graetz, 2005). Several of these researchers agree that strategy or strategic management involves both strategic planning and strategic thinking (Heracleous, 1998; Graetz, 2005; Haycock et al., 2012; Chaffee, 2017). As Heracleous (1998) explains, it is through strategic thinking that strategy emerges, but the implementation requires strategic planning. Hence, strategic thinking is a precursor to strategic planning. However, a key problem with strategic planning is that over time, people developed more sophisticated analysis techniques and tools but their thinking was impeded by the fixation on analysis; in other words, 'paralysis-by-analysis'(Wilson, 1994; De Wit, Meyer & Heugens, 1998; Herrmann-Nehdi, 2007).

Many researchers argue that both strategic planning and strategic thinking are required to drive strategy making (Heracleous, 1998; Graetz, 2005; Haycock et al., 2012; Chaffee, 2017). Distinctions between strategic planning and strategic thinking thus needs to be clearly understood by an individual performing strategic thinking. Strategic planning corresponds to a planned strategy and strategic thinking corresponds to emergent strategy (Graetz, 2005). Strategic planning also tends to be more popular (Benito-Ostolaza & Sanchis-Llopis, 2014), which poses a problem because strategic thinking is inhibited by a culture biased towards strategic planning.

Failure in implementation is another reason universities do not adapt strategic planning, strategic thinking or strategic management models to their environment, creating generic as opposed to institution-specific plans (Machado & Taylor, 2010). As institutions themselves are unique, strategy should reflect such individuality. Those institutions that do so stand a greater chance of being effective (Keller, 1983; Van Vught, 1998).
In the next section, I provide an outline of systems thinking, which is the key component of strategic thinking.

2.3.5 Key component of strategic thinking: Systems thinking

In this study, I aim to understand how strategic thinking occurs with a view to developing a holistic perspective. Systems thinking is a 'holistic approach' (Shaked & Schechter, 2011), considered an essential component of strategic thinking (Liedtka, 1998; Bonn, 2005; Stacey, 2007; Casey & Goldman, 2010; Wolters et al., 2013). As Bui and Baruch (2012:521) indicated, "Without systems thinking, it would be difficult, if not impossible, to develop a strategy that fits the organization". Therefore, principles of systems thinking must inevitably be taken into account whenever strategic thinking is performed.

Systems thinking is a well-known practice to manage complexity in organisations (Stacey, 2007; Galbraith, 2010). A system comprises of parts that work together to ensure the functioning of the system in order to achieve a specific purpose (Ackoff & Gharajedaghi, 1996). When organisations are viewed as a system, the various departments, units or people can be considered the parts. Systems thinking avoids the binary way of thinking of a single cause and effect; rather, there are multiple causalities (Elsawah & Guillaume, 2016). Through making connections, a multifaceted view is developed that contributes to integrated and sustainable decisions. One identifies patterns over time by analysing deeper systemic structures and behaviour such as procedures, hierarchies, culture and objectives (Monat & Gannon, 2015).

Although cognisance of the individual parts is included in systems thinking, the integration of the parts into a whole is central to systems thinking. Stacey (1992) points to three main benefits of systems thinking in strategic thinking and these include:

- When things go wrong, this may be due to system complexity; no particular individual may be to blame;

- An individual nonetheless can make a big difference because the structure of the system may amplify an individual's contribution out of all proportion; and
- When operating in complex systems, no one individual fully understands, which makes both group cooperation and the sharing of different perspectives vital.

The link between strategic thinking and systems thinking has been made by various researchers (see Mintzberg, 1994; Liedtka, 1998; Flood, 1999; Stacey, 2007; Smith, Peters & Caldwell, 2016; Pisapia, Townsend & Razzaq, 2017). These researchers adopt a perspective of complexity that they argue must be considered when performing strategic thinking. A strategist therefore needs to adopt a systems view when performing strategic thinking. Gharajedaghi (2011) regards organisations as socio-cultural systems, while Senge (1990) describes four in-built components embedded in systems thinking, namely mental models, shared vision, team learning, and personal mastery. Ultimately, however, mental models are the fundamental driver in organisations (Monat & Gannon, 2015).

Mental models emerge as fundamental to shaping decision making (Sterman, 2002; Malan et al., 2009). Monat and Gannon (2015) explain that mental models underpin events, patterns and systemic structures. The term 'mental model' refers to the underlying assumptions and perceptions underpinning worldviews (Malan et al., 2009). In this way, mental models act as the driver of human-designed systems, such as organisations, because they are reflections of the underlying understanding of a specific topic. Simply put, the way in which human beings think is ultimately the limiting factor in a system. Mental models are therefore considered critical in either inhibiting or enabling strategic thinking (Malan et al., 2009; Bonchek & Libert, 2017). Moreover, individuals are constrained by their cognitive ability, mental models, values, and competencies (Liedtka, 1998; Bonn, 2005; Steptoe-Warren et al., 2011; Goldman, 2012). Mental models are deemed to be influenced by culture (Monat & Gannon, 2015) and expanding mental models is key to identifying problems and improving decisions (Sterman, 2002).

Bonchek and Libert (2017) argue that of the three mechanisms that are critical in shaping strategic thinking to drive organisational performance (a business model, a mental model and a measurement model), only the mental model is unique and cannot be reproduced. Presumably, the *mental* that they are referring to is a shared mental model in the organisation. Since the maintenance of an organisation's uniqueness is a critical aspect of strategic thinking,

according to Boncheck and Libert (2017), an organisation's shared mental model generates the uniqueness of the organisation. Malan et al. (2009) further state a shared mental model can be developed by establishing a better understanding of the organisational context, which depends on understanding the environment, including the strategists themselves. One way of ensuring that a shared mental model is developed that is in line with the organisation's purpose is to examine the mental models of those engaging in strategic thinking (Churchman, 1968).

Systems thinking is also sometimes referred to as systemic thinking. While some researchers use these terms interchangeably or do not overtly differentiate between them (Espejo, 1994; Segatto, Inês Dallavalle de Pádua & Pinheiro Martinelli, 2013; Halpin & Kurthakoti, 2015), others make the distinction (Bartlett, 2001; Flood, 2010). Bartlett (2001:2) differentiates between systems thinking and systemic thinking considering the former to entail "thinking about how things interact with one another", while the latter is the thinking technique to obtain "system wide focus". Systemic thinking is being able to recognise repetitive patterns, which makes it a useful management tool to consider solutions beyond this pattern (Bartlett, 2001). In my study, I do not distinguish between systemic thinking and systems thinking.

Next, I discuss the various conceptualisations of strategic thinking and present the ideas and definitions that are relevant to this study.

2.3.6 Various conceptualisations of strategic thinking

Despite the consensus that strategic thinking is of critical importance to organisational viability, it is often lacking (Camillus, 1996; Graetz, 2005) and many organisations do not create clearly defined strategies for long-term sustainability (Wolf & Gering, 1998). One of the reasons could be because there is an assumption in literature that the difference between strategic and other types of decisions is clear and that the meaning of 'strategic' is misunderstood. Wolf and Gering (1998) argue that there are four reasons that organisations resist strategic thinking, namely a lack of vision, fear of change, lack of leadership, and lack of risk-taking. However, they do not address the issue of whether there is clarity on what strategic thinking means, which raises questions regarding whether the conceptualisation of strategic thinking is problematic.

There are different conceptualisations of strategic thinking. For example, strategic thinking is considered a mindset, as well as a set of techniques (Kabacoff, 2014). As mental processing, it is located in the strategy school, viewed as an essential ability or skill that leaders need to possess (Pisapia & Robinson, 2011). Goldman et al. (2015) explain that strategic thinking is generally conceptualised in the literature as either analytical techniques that serve as a fundamental part in the development of strategy, mental processing or engaged behaviours. These conceptualisations are all-inclusive (Wolters, Grome & Hinds, 2013:36); the first two conceptualisations are included in the third (Goldman et al., 2015). In other words, strategic thinking is a means to achieve strategy, involves thinking about strategic issues and/or making strategic decisions in the development of strategy, and manifests through actions taken to implement the strategy. Ultimately, therefore, the process or action-oriented dimension of strategic thinking can be considered to be a more inclusive perspective. Indeed, strategic thinking has an action orientation (Mintzberg, 1987b). In my investigation of strategic thinking as the key concept, I adopted this inclusive, action-oriented, broad view of strategic thinking as an activity performed by individuals who are involved in the development and implementation of enrolment strategy.

There is great emphasis on the importance of strategic thinking as a way of thinking, a mindset or competency (Steptoe-Warren et al., 2011). The literature places significant emphasis on improving the individual's strategic thinking ability. Most of these studies take a narrow approach by limiting strategic thinking to something that only top leaders do; thus, many researchers restrict their investigation of strategic thinking to the top levels of the organisation (Zabriskie & Huellmantel, 1991). Nevertheless, others indicate that it is important that all managers, irrespective of the level, are skilled at strategic thinking (Casey & Goldman, 2010) and there is some momentum in the literature that has led to a recognition of the importance for middle managers as well (Thakur & Calingo, 1992; Van Rensburg et al., 2014; Roper & Hodari, 2015; Jarzabkowski et al., 2016b).

The predominant view is that the strategic thinker must strive towards a specific combination of competencies to achieve a specific result. There is an emphasis on trying to identify the sub-components of strategic thinking and assess or measure strategic thinking in a quantitative way in order to develop tools for measurement (Pisapia, Ellington, Toussaint & Morris, 2011). Goldman (2012) argues that the strategic thinking literature focuses more on the characteristics of strategic thinking than the process of strategic thinking.

Although the value of experience has rarely been questioned in studies on strategic thinking, McKenzie, Woolf, Winkelen and Morgan (2009) argue that under stressful conditions, including strategic decision making, people possess shortcomings in terms of their mental conditioning. This is one of the studies that consider the limitations of individuals when performing strategic thinking, and it offers a non-traditional mode of strategic thinking that includes halting one's usual habits when faced with uncertainty, ambiguity and contradiction. Experience in strategic thinking and other personal and work-related experiences tends to be emphasised in the development of strategic thinking (Casey & Goldman, 2010); however, De Wit et al. (1998) state that strategists are not omniscient and can make errors because they have limitations in terms of their thinking and available information. Coupled to this is the fact that the future cannot be predicted, so strategic thinking involves assumptions (Zabriskie & Huellmantel, 1991). Consequently, it often appears that strategic thinking is a type of power that is beyond the capability of a simple human being. The literature also tends to reflect strategic thinkers as beyond limitations. This idealistic depiction can be misleading because strategic thinkers encounter the same types of life occurrences experienced by others, such as ill-health, death, ageing and personal difficulties. My study draws on the individual in a holistic manner in terms of their strengths and weaknesses as individuals.

Another study that considers the individual strategic thinker in a more integrated manner is Goldman (2012), who argues that an alternate formulation of strategic thinking is to consider it as a skill that develops in time. The development of individuals' strategic thinking ability occurs while one engages in the management of strategic issues (Liedtka, 1998). Within this developmental perspective, the focus is on identifying what factors enhance the strategic thinking skill or what organisations can do to cultivate and support the skill. Strategic thinking can be developed, but innate capabilities or traits can also be there to contribute positively towards strategic thinking (Linkow, 1999; Benito-Ostolaza & Sanchis-Llopis, 2014). Moreover, linked to this development perspective is the importance of practice (Beckham, 2017).

Thinking is a cognitive function, so strategic thinking relates to cognition. The level of cognition could be the individual, or collectively at the level of an organisation or a group. Although individuals perform strategic thinking, there needs to be recognition of the influence of the group and organisational level to improve the strategic decision-making capability of an

organisation. According to Bonn (2005), another important factor to include in the analysis of strategic thinking is the characteristics of the persons performing strategic thinking and the organisational context as people are influenced by contexts in which they work. Organisational context comprises of several factors, but organisational culture and structure are two essential parts (Dulewicz & Higgs, 2005; Seale & Cross, 2015). Abraham (2005) argues that irrespective of the level at which strategic thinking is performed, an important factor is the continuous performance of strategic thinking while sharing amongst key people in the organisation. Liedtka (1998) concurs that both the individual and organisation benefit through inclusivity in the dialogue.

I now address what the literature provides regarding strategic thinking at the individual level. Halevy (2016:3) states that strategic thinking at the individual level is considered a "demanding cognitive task", characterised by "outcome interdependence" of behaviour and outcomes – how "our actions and the actions of others influence our own and others' outcomes". When a person makes decisions that have outcomes that do not affect any other person, that type of thinking can be classified as non-strategic. However, when a person makes a decision that could potentially affect another person, it is classified as strategic thinking. After having classified thinking into 'strategic' and 'non-strategic' in relation to outcomes, Halevy turns to classifying thinking in relation to behaviour. Thinking solely about one's own behaviour is considered 'individual' thinking, whereas strategic thinking requires continuous understanding of one's own and the other party's knowledge, awareness, motivations, intentions, access to information, and so on. Although Halevy (2016) provides a considerably detailed view of strategic thinking at the individual level, he lacks reflection on individuals in organisations and the effect of either on the other.

Bonn (2005) considers strategic thinking as a paradigm supporting the resolution of organisational difficulties. Her multi-level framework describes three levels: the individual, group and organisation. The characteristics of strategic thinking at the individual level are systems thinking, creativity and vision. This model is one of the few multi-level models that acknowledges and accommodates different levels into the conceptualisation. Strategic thinking in organisations generally occurs as a group, where executive teams set the strategy and make collective strategic decisions, thus the awareness of group dynamics within an organisation is considered important (Stacey, 2007). Effective dialogue is thus a significant group dynamic that positively influences strategic thinking at the individual level (Liedtka, 1998). Team and

organisation structure influence strategic thinking, and diversity in group-thoughts benefits strategic thinking (Bonn, 2005). Additionally, Jelenc, Pisapia and Ivanusic (2016) found that strategic thinking is influenced by the following demographic variables: age, gender, education and experience.

There is no one specific, integrated definition of strategic thinking. Rather, definitions tend to vary based on the approach taken towards strategic thinking. The conceptualisation that Heracleous (1998:482) argues strategic thinking and strategic planning are "interrelated" in a "dialectical process", where both are necessary for effective strategic management, and each mode on its own is "necessary but not sufficient". Here, strategic thinking and planning occur in an iterative process. Fairholm and Card (2009), on the other hand, use another approach. They outline four approaches and associated strategic thinking types, considering how actions are adopted to realise strategy, what ambitions are meaningful, and the specific reasoning for a specific strategy (why), which is grounded in values. Their key point is that there is a need to highlight the importance of preserving the connection between actions and the purpose and measure of success of strategic thinking. The last approach is the why-what-how approach whereby organisational beliefs act as the driver of value-based reasoning that presents a holistic perspective of strategic thinking. Strategic thinking begins and connects with inherent organisational purpose, meaning and values, which become the criteria against which any results or processes can be measured. In other words, the difference between strategic planning and strategic thinking in an organisation is analogous to the difference between the external and internal aspects of a body. Utilising this view, strategic thinking involves comprehension of the complexity, uncertainty and ambiguity of organisational life and the limitations of reductionist approaches. Ultimately, it is a view that stems from a systems' or holistic perspective. The basis of this view is the definition offered by Mintzberg (1994:109):

> …strategic thinking is…about synthesis. It involves intuition and creativity. The outcome of strategic thinking is an integrated perspective of the enterprise, a not-too-precisely articulated vision of direction… Strategy making is not an isolated process. It does not happen just because a meeting is held with that label. To the contrary, strategy making is a process interwoven with all that it takes to manage an organization. Systems do not think, and when they are used for more than the facilitation of human thinking, they can prevent thinking.

This view facilitates a more sensible, significant, conscious method of strategic thinking that is based on influencing the actions of individuals and the organisation. My study draws on this definition of strategic thinking.

Fairholm and Card (2009) argue that some leaders may continue to prioritise strategic planning over strategic thinking because strategic planning is a means of proactive control. In strategic thinking, on the other hand, leaders relinquish control as they embrace an ambiguous situation that encourages innovation. In this fluid context, a move towards a people-centred approach is required. Confronting this "qualitative nature of organisations" gives rise to being more at ease with uncertainty because leaders are then able to get proper answers by acknowledging their own limitations, while simultaneously trying to expand their perspective (Fairholm & Card, 2009:27). In these situations, leaders should be able to manage their personal insecurities and inadequacies because the focus on innovation in the organisation is the priority. Lifting one's perspective is thus necessary to keep up with the dynamic process of how knowledge shifts and it focuses on relationship characteristics from a qualitative perspective. The principle is that an organisation goes beyond being a set of persons without significance as they have interdependencies and effects on one another. It is understood that people form an essential part of the organisation and that the interactions between people are vital. Strategic thinking is thus more reliant on organisational culture than structural considerations, such as the development of goals and objectives. The structural integrity of strategic thinking is therefore provided by cohesive collective confidence and trust. (Fairholm & Card, 2009)

2.3.7 Individuals, emotions and strategic thinking

One of the embedded components of systems thinking is personal mastery, which involves a person continuously learning and growing (García-Morales, Lloréns-Montes & Verdú-Jover, 2007). It thus acknowledges that as a person gains more practice and develops their ability to think strategically, their strategic thinking capability improves. In other words, as personal mastery improves, so does the ability to think strategically. Casey and Goldman (2010) confirm that strategic thinking is learnt and improved over time. Personal mastery is about building competence in learning, and it is a critical factor for organisations (Bui, Ituma & Antonacopoulou, 2013) as it improves organisational performance (García-Morales et al., 2007). There are also ethical and moral dimensions built into personal mastery (Rowley & Gibbs, 2008). Senge (1990:126) states that:

> It (personal mastery) goes beyond competence and skills, though it is grounded in competence and skills. It goes beyond spiritual unfolding or opening, though it requires spiritual growth. It means approaching one's life as a creative work, living a life from a creative as opposed to reactive viewpoint.

Furthermore, Senge (1990) argues that personal mastery comprises of various elements: personal vision, managing the gap between personal vision and current reality (referred to as creative tension), rising above beliefs that impact negatively on personal mastery, a commitment to truth, and an understanding of the subconscious. Strategic thinking is a skill requiring exposure, patience and experience to develop (Casey & Goldman, 2010). Similarly, attributes such as tolerance of failure, patience, and perseverance are required for personal mastery (Senge, 1990).

There is also a connection between personal mastery and mental models in the sense that as a person develops their personal mastery, their mental model adjusts. If a person develops their personal mastery solely for personal benefit, personal mastery can be counterproductive to the organisation (Rowley & Gibbs, 2008). Developing a shared organisational mental model is therefore needed to balance the individual gains of personal mastery with an organisation, and a shared mental model can be cultivated through a common understanding of the organisational context (Malan et al., 2009).

Ashkanasy and Humphrey (2017:175) emphasise the importance of making the connection between emotions and management theories in general, by arguing that the intrinsic quality of an organisation is the close relationship between organisations and individuals; it means that processes "…emanate from the human brain, which is the source of two related but nonetheless differentiable phenomena: cognition and affect". There is a tendency to stress cooperative, macro factors in strategy research (Barney & Felin, 2013) where individuals are at times regarded as standardised entities that are arbitrarily scattered in an organisation (Felin & Foss, 2006; Felin, Foss & Ployhart, 2015). Similarly, Barnard (1968:139) claims that "the individual is always the basic strategic factor of organization". Organisations therefore realise that becoming more human-centred is crucial in promoting originality (Bijl-brouwer & Dorst, 2017).

In this study, the bias towards research on cognition without considering emotions is recognised, and I therefore aim to consider the individual in an integrated manner to develop a holistic (and, in one sense, more realistic) strategic thinking perspective. Micro-foundations research highlights the individual and social interactions when investigating strategy in organisations. A focus on the individual may be considered to be limited, but Ployhart and Moliterno (2011:132) argue that the macro level emerges from the micro-level through an "emergence enabling process" – a process that is critical in explaining how analysis at the micro-level (such as in my study) links with the broader macro, organisational level. According to them, there are two interrelated components that engage in creating the emergence-enabling process – the complexity of the environment and the "emergence enabling states" with the latter component describing how the individuals "act, think, and feel" (Ployhart & Moliterno, 2011:132). The emergence-enabling process is critical in explaining how analysis of strategic thinking at the micro-level (individuals engaged in strategic thinking in the development and implementation of enrolment strategy) transforms into the broader macro-organisational level strategic thinking. Felin, Foss and Ployhart (2015) state that developing theoretical and empirical studies that utilise micro-foundations is difficult, yet they emphasise that a key principle is that micro-foundations is not a theoretical framework but an approach that draws focus to the levels under a broader umbrella, for instance, the individual as the lower level in the organisation. I follow the definition of micro-processes as presented by Kouamé and Langley (2018:561) as "…individual or collective processes and activities taking place at a lower level than organizational level".

Integrating the individual and organisational levels requires a multi-level approach. Ployhart and Moliterno (2011) explain that the theoretical and empirical levels in a multi-level study differs. The theoretical level in a multi-level study denotes the level at which a concept or process is expected to occur, which is not the same as the level at which the construct or process is measured. Another feature of a multi-level study is that the attribute of emergence is a critical concept in providing an explanation about how lower-level phenomena influence higher levels to create emergent phenomena that occur during self-organisation in complex systems.

There are concerns that the behaviours associated with strategic thinking lack empathy (Natale & Sora, 2010). However, over the last few years, there have been some shifts that indicate scholars are taking individual emotions into consideration in their research. Some studies have also described the connection between emotions and specific strategy processes (Liu & Maitlis,

2014), while others have exposed the inhibiting effect of fear (particularly in hierarchical structures) on strategy processes that inhibit innovation (Vuori & Huy, 2016), and the emotional aspects of stories of change from the viewpoint of senior managers (Balogun, Bartunek & Do, 2015).

An introduction to global drivers that are used to explain strategic thinking in HE is presented next.

2.4 Global Drivers of Strategic Thinking in Higher Education

Scott (2000) argues that globalisation forced universities into significant remodelling to maintain organisational viability. The OECD confirms that new forms of institutional governance is one of the primary globalisation trends at universities (OECD, 2003). Indeed, Krucken and Meier (2006:242) state that globalisation remodelled universities into "organisational actors" with strategic intent.

According to Carnoy (1999), an interdependent relationship exists between knowledge and globalisation wherein knowledge is foundational to globalisation. Two primary developments of globalisation, both directly related to universities, have been the major advancement in ICT and the creation of a knowledge-driven economy (Carnoy, 1999; Cloete, Fehnel, Maassen, Moja, Perold & Gibbon, 2002; Altbach, 2004). Carnoy's assessment endorses Castell's (1999) idea that globalisation stimulated a redefinition of universities. The status of knowledge, and consequently the premium placed on universities, has been considerably elevated. There has also been significant growth in the benefits attributed to universities, specifically in relation to employability and earnings (Baum, Ma & Payea, 2013; Wong, 2016). Higher education is being treated as a commodity driving economic advantage (OECD, 2008b; Naidoo, 2011).

Multiple, interrelated trends cannot be considered in isolation, yet a clear tendency in the globalised landscape has been intensified demand for higher education (Schofer & Meyer, 2005; Altbach, Reisberg & Rumbley, 2010; Aydin, 2014). The expansion trends first emerged in the US because the system was developed enough to accommodate the expansion (Gumport, Iannozzi, Shaman & Zemsky, 1997). As reported by Schofer and Meyer (2005), worldwide, enrolments grew from approximately 500 000 in 1900 to 10 million in 2000. Movement from an elite to a mass system was therefore set in motion. By 2007, enrolments increased to

156 million (Altbach et al., 2010). Universities became more easily accessible, weakening it as a status symbol (Sidorkin, 2012).

Higher education is pivotal to development in developing countries (Naidoo, 2008), which places countries with developing economies in a quandary: economic growth and technology advancement are both of critical importance, yet there is limited funding to support enrolment increases (Pillay, 2011). Naidoo (2014) argues that nations are under pressure to move to mass systems in order to produce a workforce with the new skills expected in the knowledge-based global economy. A primary concern in Africa is that a lack of skilled human capital could impede continued economic growth (Mohamedbhai, 2014). African governments are thus under tremendous strain to boost growth through fiscal support (Carnoy, 1999). Although the African tertiary education landscape is diverse, many universities are faced with testing social, economic, and political conditions, which further exacerbate the situation (Teferra & Altbach, 2004). Universities encounter escalating enrolments, without a concomitant rise in financial resources. As Teferra and Altbach (2004) explain, some countries have experienced rapid inflation coupled with currency devaluation. Tighter margins thus force sharper trade-offs between efficiency and equity. I contend that owing to the complexity shaping the African universities and the competitive external globalised environment, targeted strategy and strategic intent models are essential to avoid the malaise of mediocrity.

2.5 Strategic Thinking in Higher Education

Bryson (2016:7) argues: "…increased jurisdictional ambiguity…requires public and non-profit organisations…to think and to act strategically as never before". To cope with the complexity, new processes and perspectives emerged such as marketisation, corporatisation, commercialisation and managerialism (see Eagle & Brennan, 2007; Sidorkin, 2012; Leslie-Hughes, 2013; Nica, 2014). Higher education is often treated as a commodity driving what is considered to be a knowledge-based economy (Naidoo, 2008; Marginson, 2011). With the environment appearing marked by complexity and competition, strategic thinking seems to be a necessity (Teece, 2017).

Globally, universities are facing major shifts, and many in the recent past have been related to the fourth industrial revolution, requiring universities to remain relevant. The various trends affect how universities operate and how leadership develops and implements interventions for

effective enrolment strategy processes, such as the development and implementation of an enrolment strategy (Black, 2010). It is considered that organisations need to be agile and responsive through data-driven decision making. In the past, universities have had to turn to perspectives other than the traditional academic models, and strengthening decision making capability has emerged as a critical driver. Moreover, Kok and McDonald (2017) claim that university ranking processes have magnified the focus on performance by measuring specific indicators that drive performance at the individual level, including performance management systems, models and frameworks for staff.

Some believe that new approaches threaten the fundamental nature and identity of universities (Bok, 2003; Tomlinson et al., 2018). However, others accept that these methods are required. For example, Sidorkin (2012:497) admits that "the semiotic field of anti-commercialization is weakening" and Machado and Taylor (2010:12) conclude that "the managerial revolution is a reality and a need". These standpoints – that strategic thinking is relevant and important to universities – shape the perspectives presented in this study.

Despite the widespread acceptance of adopting strategy in HE, critics challenge any form of managerialism at universities (Birnbaum, 2001; Tomlinson et al., 2018). Conversely, proponents view strategy as a mechanism to cope with the complexity of the environment; these researchers consider the source of the complexity to be the universities' management. There is general agreement that such criticism is levelled primarily because of failed implementation and the threat to institutional identity (Dooris et al., 2002; Taylor et al., 2007; Hinton, 2012). The intent underpinning strategy at universities is therefore crucial to their success (Rowley & Sherman, 2002).

Strategy development requires a realistic sense of strengths and weaknesses of an organisation's (Mintzberg, 1990) and some authors argue that the traditional views of universities are not sufficiently realistic. For instance, Sharp (2002) claims one of the characteristics of universities is to protect the institutional image by attributing flaws to system limitations rather than rationally evaluating organisational shortcomings. Another example is highlighted by Cowburn (2005), who explains that many university mission statements straddle idealistic extremes of desiring to be world-class when, in reality, it is difficult and often impossible to achieve. Whereas much of the distrust of strategic strategy at universities

institutions relate to the fact that it is seen as a threat to institutional identity, it can be argued that the traditional university culture could inhibit strategic thinking.

One question that remains is whether strategic thinking models can be applied successfully in countries outside the US, where it originated. In Rowley and Sherman's (2002:8) assessment of the application of strategic planning in Europe, they conclude that generic elements of models are relevant in any context, although it requires continual adaptation to internal and external environments in order to avoid the 'one-size-fits-all' approach. Consistent communication and a participatory approach are crucial mechanisms in gaining an understanding on issues of context. Lastly, the view of strategy development needs to be seen as the starting point of efficiency, leading to incremental changes on an annual basis, as opposed to a means to radical change (UNESCO, 2010).

There is a notable assumption in the sparse literature on strategic thinking at universities that leaders in particular need to embrace a competitive, success-based and goal-oriented approach. This assumption allies with most strategic thinking models and does not consider whether these are appropriate for the university context. Although the purpose of strategic thinking is an ostensibly competitive advantage, whether competition is appropriate for universities is a contentious issue (Naidoo, 2016). Arguably, the assumption of competition between universities could be particularly risky for a developing country context.

Next, I present a synopsis of strategic thinking at SA HE institutions, beginning with an overview of the relevant policies.

2.6 Strategic Thinking in South African Higher Education

The research context I have chosen is public universities in post-apartheid SA, which underwent numerous enrolment transformations. Nevertheless, challenges still exist, most notably, poor throughput and varied student success. Moreover, student protests emerge whenever students feel dissatisfied. In this landscape and under these circumstances, strategic action becomes vital to institutional survival and investigating strategic thinking at SA public universities was therefore considered suitable.

In SA, the private returns of having a tertiary qualification are the highest in the world (Montenegro & Patrinos in Cloete, 2016). There is a small graduate pool and graduates with the right types of skills or trained in scarce skills areas are paid a premium. It is therefore not surprising that there is enormous pressure on universities in terms of enrolment; students view enrolment at a university as more valuable than at a college. This can be seen from the fact that public university enrolment accounts for the largest proportional share of enrolments (approximately 44%). Public universities are thus the primary contributors in achieving the country's national enrolment goals, as described in the National Development Plan (NPC, 2010) .

2.6.1 Policies underpinning enrolment at universities in South Africa

The period being researched is post-apartheid SA, from 1994 onwards. The transformation from apartheid to democracy required systemic policy shifts and reforms (Menon, 2014). The overall goal of policies underlying the development and implementation of enrolment strategy was initially designed to drive the transformation towards a "single, co-ordinated system" (DoE, 1997:9). While the 1996 National Commission on Higher Education (NCHE) report set the key principles for the Education White Paper (WP) 3 (DoE, 1997) and the Higher Education Act (South Africa, 1997), it was followed by the 2001 National Plan for Higher Education (NPHE) (DoE, 2001), which heralded a more strategic, goal-oriented stance using funding, planning and quality assurance as key steering mechanisms for transformation (Badat, 2010). More recently, the 2013 White Paper for Post-Secondary Education and Training (DHET, 2014:2) set the latest policy intent: "A skilled and capable workforce to support an inclusive growth path". All these policies established an increase in access and participation as the key goals, particularly in terms of social class, race and gender. Furthermore, the 1997 Higher Education Act positioned a new framework that increased the power of the national level over public universities, essentially eliminating universities' autonomy (Bozzoli, 2015).

Another significant policy development was the structural shifts that occurred through merging certain institutions from 2002 onwards. There is debate as to whether the mergers promoted or detracted from the primary goal of improving access (Lungu, 2001; Jansen et al., 2007; Menon, 2014) but this discussion is outside the scope of this study. What the mergers and incorporations did was to reduce the number of universities as a means to reduce structural and

social inequalities. Three types of institutions were created, namely traditional universities, universities of technology, and comprehensive universities. Each category was conceived of as a different institutional identity, initially constructed around a programme qualification mix that was either geared towards more theoretically focused qualifications (traditional universities), vocationally focused qualifications (university of technology), or a combination of these categories (comprehensive university).

By 2004, apart from the inter-institutional competition, low participation and graduation rates, alongside high dropout amongst African students, thwarted the attainment of the goals (Gibbon, 2014; CHE, 2009). At the same time, graduate outputs were racially skewed with too few historically disadvantaged students graduating. Accordingly, the scene was set to introduce the first report on "Student Enrolment Planning in Public Higher Education" (dated March 2005), which ushered in focus on planning for growth, but within specific funding boundaries. A technical, quantitative, data-driven, projection-based vocabulary was introduced in the report that grounded enrolment planning in terminology that would serve as inputs into the new funding framework. In other words, "strong planning language" (Menon, 2014:64) was used to provide a consistent basis for planning (CHE, 2016). A vital element of the report is that institutions had to set their own targets, subsidy would be paid based on the targets, and universities were restricted to a 2% margin of deviation from the targets to avoid penalties.

The previous South African Post-Secondary Education (SAPSE) funding model was based on student demand, and subsidy during this period was allocated according to actual enrolments (Steyn & De Villiers, 2006). A new funding framework was introduced in 2004 based on projections from the planning process (CHE, 2016). A major problem, however, was that the new funding framework did not accommodate any inflationary increases (OECD, 2008b), but the introduction of teaching output grants was significant in promoting student success. Nonetheless, the block grant connected to input enrolment still accounted for more than 60% of the total block grants (DHET, 2014), while the graduate or output grant accounted for a mere 16% (Cloete, 2016). There have been higher incentivisation of outputs, considering that the input subsidy unit value remained at the same level, while the output value has increased, in part to discourage institutions from increasing enrolments only to benefit from the input skewed funding (Menon, 2014). However, Cloete (2016) argues that such an emphasised input-driven system could still act as a perverse incentive.

The latest policy development occurred in 2017 when government decided to phase in fee-free HE to allow the poor and working-class students to access HE more easily.

I now provide an outline on the concept of enrolment at SA public universities.

2.6.2 Background on enrolment at South African universities

The word 'enrolment' typically refers to the act or process of being enrolled, but it appears that there are disparate understandings in SA, largely determined by institutional definitions (Pillay, 2010; Daniels, Linda, Bimray & Sharps, 2014; Imenda & Kongolo, 2016). One reason for the disparity is that the new funding framework uses headcounts, not registrations. Whereas registrations are the number of students that enrol at a university at the beginning of the year, headcounts disregard the registration cancellations before the middle of the year. Nevertheless, the lack of consistency around a ubiquitous definition of enrolment presents a challenge that extends into concepts like the development and implementation of enrolment strategy.

Kemerer, Baldridge and Green (1982) defined 'enrolment management' in two ways in terms of adopting a pragmatic, proactive approach or developing relations with students. Hossler (2015) then identified relevant institutional segments in five broad areas, namely, marketing; recruitment; financial aid; retention; and graduation. Thus, the definition of 'enrolment management' was extended to include the processes of retaining students at the institution until they graduate. This more expansive view of enrolment management processes considers the entire enrolment system, as shown in Figure 4, below. Maintaining the balance between recruitment, retention and graduation became known as *strategic* enrolment management (Taylor, Brites, Correia & Farhangmehr, 2008), and student success is embedded as a core principle (Bischoff, 2007).

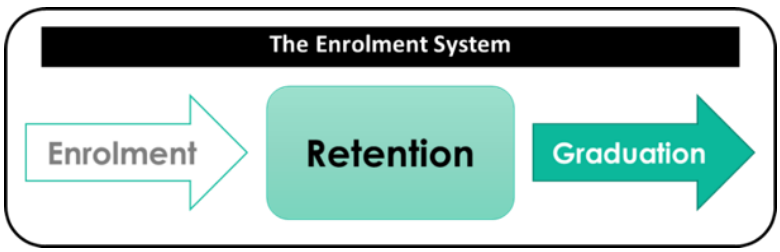


Figure 4: The enrolment system

It is not surprising that most of the literature on strategic enrolment management is found in the United States (US) because strategic planning originated there. Furthermore, US institutions receive the majority of their income through tuition fees, hence any decline in enrolment seriously threatens an institution's fiscal stability and sustainability. For example, Dennis (1998) highlights the fact that since 1980, approximately 900 US universities had to close or merge because they could not remain viable, likely because of declining enrolments. Another reason for the impetus to adopt strategic enrolment management in the US was amplified inter-institutional competition causing a tighter financial model (Penn, 1999; Mei Lan Peggy, 2014). Strategies to increase new enrolments were, therefore, critical (Huddleston, 2000). In short, strategic enrolment management emerged to ensure institutional viability by re-examining enrolment strategy and policies in response to the complex and increasingly competitive environment (Hartunian, 2011). In the literature, strategic enrolment management and enrolment management are used interchangeably, but in this study, as a result of the lack of clarity at SA universities, I do not limit the concept to either. I consider enrolment from a strategy perspective and therefore focus on the development and implementation of enrolment strategy.

In SA, there is a planned, rational approach concerning enrolment. However, the distinction between the development and implementation of enrolment strategy is clearly – enrolment strategy development is a type of systemic control that is not adequate and institutions will need to ensure that the targets are met through active, emergent enrolment implementation. Tighter government reporting and monitoring have further challenged universities to adopt more innovative practices (Beneke & Human, 2010).

The National Development Plan for SA, known as the NDP 2030, states various targets. Specific national enrolment targets to be achieved by 2030 are 1.62 million enrolments, an increase in students studying maths and science-based qualifications to 450 000, an increase in the percentage of staff with doctoral degrees at universities to over 75%, and to generate well over 5 000 doctoral graduates each year.

A major event at universities that changed the enrolment landscape was the "Fees Must Fall" (FMF) student protests in 2016. Although there were various accusations, the general consensus on the drivers of the protests was that increased access was met with undesirably

low participation rates amongst African and coloured[1] students alongside low graduation and throughput rates in a high-attrition system (Cloete et al., 2002; Lewin & Mawoyo, 2014; Menon, 2014). The cost of the high dropout rate was compromising HE in the country (Letseka & Maile, 2008). The entire system was underpinned by a weak foundation that threatened instability and unsustainability without new investment (Lewin & Mawoyo, 2014; Cloete, 2016). While the student protests may have, in the short term, pacified student demands around funding, facilitating access while addressing student success remains a vital factor in ensuring the viability of SA universities (HESA, 2011). It was concerning, however, that blame was apportioned to various role players – government blamed universities and vice versa; students blamed universities and targeted their campaign at universities.

In conclusion, in the SA context, there is a lack of a consistent definition of 'enrolment', yet there is a clearly target-driven, planned approach to ensuring that enrolment goals are met. Thus, SA universities provide a suitable context where it is imperative for individuals to perform strategic thinking.

In the final section of this chapter, I provide an overview of the structure of the thesis that was gathered from the literature.

2.7 Structural Framing of the Study

This literature review has provided the basis for a structure shown in Figure 5 that is used to guide the study dimensions.

[1] A South African term that refers to people of mixed race.

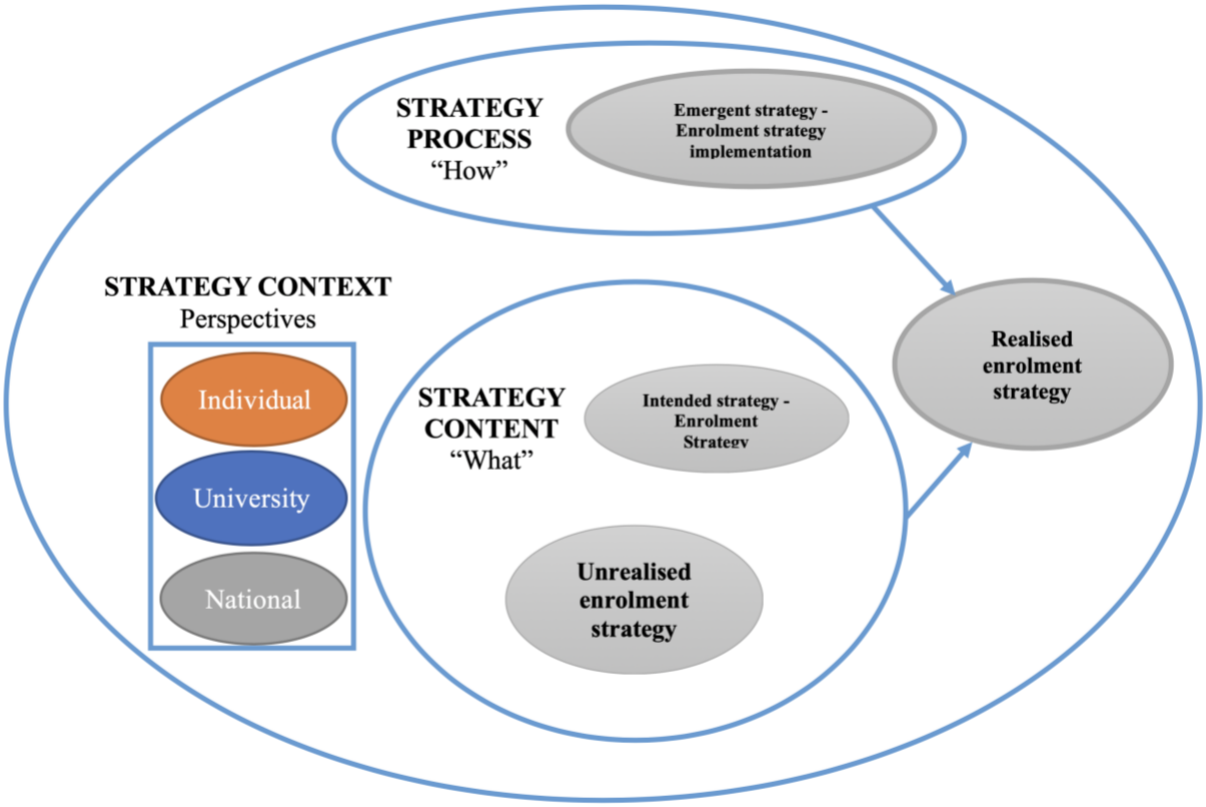


Figure 5: Structural frame that forms the basis of the structure used in the study

2.8 Conclusion

The roots of strategic thinking lie in strategy. The vagueness in the strategy literature extends into the strategic thinking literature. Strategic thinking and strategic decision making are inextricably connected. Regarded as being essential for leaders, strategic thinking is viewed as causing the success or failure of an organisation. The definition of strategic thinking is considered confusing mainly because it is difficult to differentiate between strategic and operational decisions. Strategic decisions are those that are critical to long-term impact. A single definition of strategic thinking is elusive because there are different conceptualisations of strategy. The most predominant conceptualisations are deliberate and emergent strategy. It is important to bear in mind that strategic thinking is the practice through which strategy manifests. Strategic thinking injects agency into strategy, but it requires an ontological reversal from viewing strategy as a fixed, top-down perspective.

The purpose of strategic thinking promulgated in the literature is competitive advantage, and the measure of success is being unique and irreproducible. It is clear that there is a bias towards an economic perspective of strategic thinking. Nevertheless, there are some counter-

movements that argue the success metric could be ethics, employee wellbeing, or a human and environment-centred growth model.

One of the main challenges to strategic thinking is the unclear boundaries between strategic thinking and strategic planning. Strategic planning is based on rational analysis, logic and quantitative data, and strategic thinking is the synthesis of information to form a whole picture. Despite the number of benefits of strategic planning, Mintzberg (1994) proclaimed three fallacies of strategic planning: prediction is possible, along with detachment and formalisation. Other researchers, however, provide a way of reconciling strategic thinking and strategic planning by viewing strategic thinking as a precursor to strategic planning.

One of the essential features in strategic thinking is systems thinking, which requires cognisance of the individual parts of a system. However, the key principle is to integrate the interdependencies and interconnections between the parts into a synthesised whole. There are also four main components of systems thinking – mental models, shared vision, team learning and personal mastery; mental models is the ultimate limiting factor in a system. The shared mental model in an organisation presents the unique aspect that is foundational to strategic thinking. A shared mental model can be developed by taking context into account, including the strategic thinkers themselves, and by examining the mental models of those engaged in strategic thinking. While some researchers distinguish between systems and systemic thinking, others do not. I follow the latter approach.

I adopted an inclusive, action-oriented, broad view of strategic thinking as an activity performed by individuals who are involved in strategy development and implementation throughout the organisation. While the literature tends to emphasise the need for experience, this study draws on individuals in a holistic manner in terms of their experience, strengths, and weaknesses and in relation to specific contexts. An important factor to analyse in strategic thinking studies is the organisational context in terms of the structure and culture. When viewed purely at an individual level, strategic thinking about one's own behaviour is considered non-strategic while thinking about the impact of one's own behaviour on another person is considered strategic. However, the isolated perspective of the individual on their own is not representative of the interactions between the organisation and the individual. The multi-level framework by Bonn (2005) considers the individual, organisational and group perspectives, however, this is based on a conceptual analysis without empirical evidence.

I used an approach presented by Fairholm and Card (2009), known as the ‘why-what-how’ approach to strategic thinking, and comprehended the complexity of organisational life in a holistic manner along with the limitations of other types of approach. In this approach, strategic thinking connects with the inherent organisational purpose, meaning and values, which become the criteria against which results and processes are measured. The basis of the approach is the definition of strategic thinking by Mintzberg (1994) as being a synthesis, involving insight and creativity, and requiring an integrated perspective of the organisation that is not an isolated process but intertwined in the organisation and based on human thinking.

This perspective facilitates a more sensible, significant conscious method of strategic thinking that is based on influencing the actions of individuals in the organisation. Adopting such an approach means that leaders will need to lift their perspective to viewing an organisation as a set of people whose interdependencies and interactions are vital to strategic thinking. The structural integrity of strategic thinking is provided by cohesive collective confidence and trust.

Considering individuals in a holistic manner was also required in this study. This research supports the micro-foundations movement that aims to incorporate research at lower levels in an organisation. Nevertheless, the study also considers the organisational level and thus views strategic thinking from multi-levels. Personal mastery is a concept that is required for strategic thinking, such as tolerance of failure, patience and perseverance. Moreover, an enabling organisational culture is required to promote personal mastery.

Lastly, acknowledging the affective component of individuals impacting strategic thinking is one of the foci of this study. Both emotions and moral issues are under-explored in the strategic thinking literature because these are considered to inhibit strategic thinking. This study thus follows the research that emerged and investigated emotions and strategic thinking.

3 Methodology and Methods

3.1 Introduction

This chapter covers the methodology and the methods for my study. The methodology explains the paradigms that underpin the study, which guide the specific research methods and attached research instruments used for the data collection (Kothari, 2004). The aim is to constantly maintain the research question at the forefront of the research inquiry, namely: **What holistic strategic thinking perspective can enhance enrolment strategies at universities?**

I begin by outlining the research ontology with related epistemological and methodological approaches. The chapter then describes the research setting, namely, the HE context. Thereafter, the research design is justified, and an explanation of the qualitative strategies adopted is provided, with an overall focus on the alignment of the research questions, data collection methods and constructs of the research. Ethical issues relating to confidentiality, anonymity and data management are discussed thereafter, and the chapter concludes with an outline of the validity and reliability of the study.

3.2 Research Philosophy

Research philosophies are established beliefs that direct research (Creswell, 2003), also referred to as a research paradigm (Punch, 2006), epistemological and ontological considerations (Bryman, 2008) and worldview (Creswell, 2003). A research philosophy contains assumptions of how the world is observed and underlies the decisions made in relation to the research enterprise (Saunders, Lewis & Thornhill, 2009). According to Kuhn (1962:23):

> A paradigm is a way of looking at or researching phenomena, a world view, a view of what counts as accepted or correct scientific knowledge or way of working, an "accepted model or pattern".

Two foundational ideas to research philosophy are epistemology and ontology, which respectively focuses on knowledge and being (Cohen, Manion & Morrison, 2011). Epistemology is concerned with the nature of knowledge, while ontology's concern is how reality is understood. Epistemology is broadly shaped by either an objectivist epistemology that makes a distinction between factual and untrue knowledge, and a subjectivist epistemology in which knowledge is considered to be biased (Wong Sek Khin et al., 2011).

For the researcher choosing an objectivist epistemology, the world is characterised by things that are considered to be tangible, factual and physical, and feelings and attitudes are not recognised as a part of reality (Saunders et al., 2009). These traits are typical of a positivist epistemology. Positivism accepts one reality that is experienced and understood by measuring behaviour that is governed by established laws with the aim of confirming associations, and it is deductive in nature (Walliman, 2010). Attention to human concerns is secondary to observable (or more broadly functional) and quantifiable data (Easterby-Smith, Thorpe & Jackson, 2001). In my study, however, I am concerned with individuals and their perceptions, attitudes and opinions.

Another epistemological stance is constructivism, which challenges the objectivity of positivism, since reality is considered to be socially constructed relative to individuals, organisations or interactions, thus lending constructivism to multiple interpretations (Bechara & Van de Ven, 2006). My study incorporates people's perspectives and what those perspectives mean in developing a holistic approach to strategic thinking, one that can potentially lead to enhancing strategy; hence, my study is not situated wholly within a constructivist paradigm.

In realism, reality exists whether we have knowledge of reality or not (Bhaskar, 1975), thus the knowledge that we possess is considered limited (Bechara & Van de Ven, 2006). There are two types of realism, namely, direct realism and critical realism. In direct realism, there is nothing beyond the sensory experience. In critical realism, it is considered that the senses are prone to illusion: "Critical realists argue that what we experience are sensations, the images of the things in the real world, not the things directly" and our "senses deceive us" (Saunders et al., 2009:7). Having developed from the conflict between the positivists and constructionists, critical realism integrates parts of these two paradigms but in a way that eliminates the idea that the nature of reality (ontology) is limited to the understanding of reality (epistemology); either empirical, or constructed (Bhaskar, 1975; Fletcher, 2017).

There is an empirical orientation to critical realism that is characterised by a subjective-objective dimension (Saunders et al., 2009; Wong Sek Khin et al., 2011). Consequently, critical realism is considered an attractive paradigm for management scholars (Brown, 2014; Mclachlan & Garcia, 2015). Fletcher (2017) explains that the empirical level comprises of events that are experienced, as interpreted by people, based on explanations. The next level is

independent of any person's experience and entails the 'actual'. The final level is the 'real' level that comprises causes of the empirical level. Saunders et al. (2009) argue that a critical realist paradigm is necessary for management research in which changes are suggested based mostly on understanding the first layer only. These various layers are depicted as an iceberg, as shown in Figure 6. As Danermark, Ekstrom, Jakobson and Karlsson (1997:5) argue, "the point of departure in critical realism is that the world is structured, differentiated, stratified and changing".

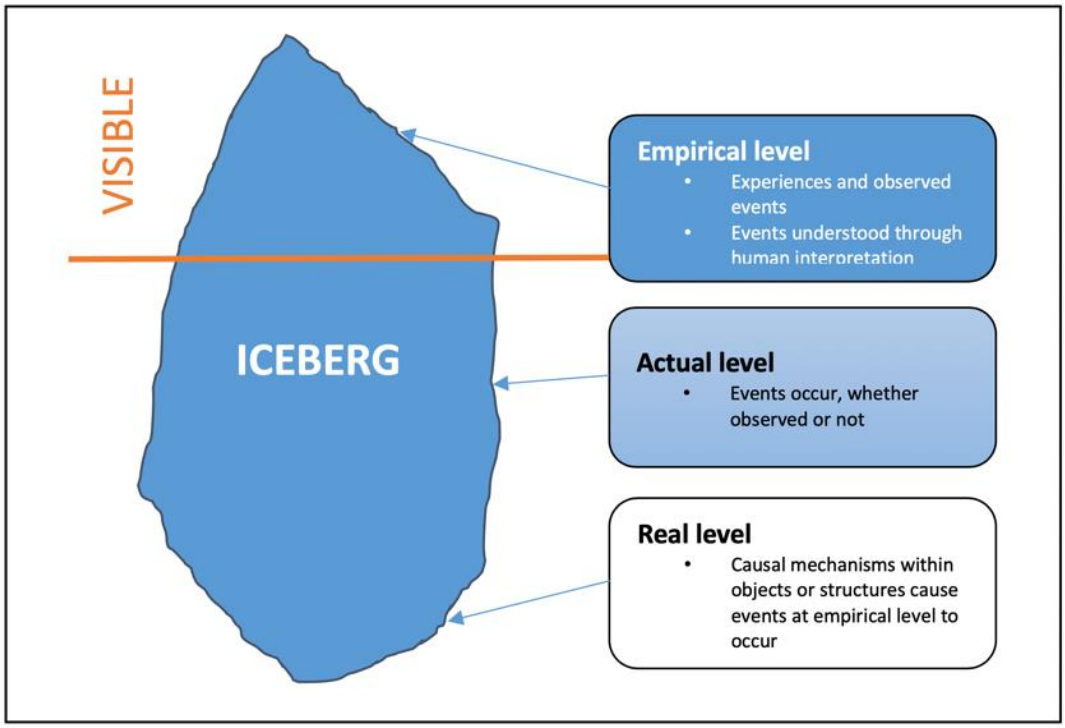


Figure 6: The various layers of reality according to critical realism (Fletcher, 2017)

The layered understanding of reality in the critical realist paradigm is beneficial to my study by providing a sequential understanding of the relationship between the micro and macro levels (Herepath, 2014). Strategists first orientate according to local structural arrangements and context, then employ their own thinking in decision making, resulting in specific events, which influence the local structures and context, creating a sequential progression (Seidl & Whittington, 2014). Thus, critical realism is valuable in enriching understanding "of structures, procedures and processes and the capacity that these structures, procedures and processes have to interact with one another" (Saunders et al., 2009:7).

Bhaskar (1975) describes that there are relations between the various layers since social structures are, in fact, activity-dependent. Causal mechanisms arise from and direct actions and are thus referred to as “social products” that can be understood empirically through those actions (Fletcher, 2017:183). As a result of interactions between events, people may react differently and predictions are thus unachievable in open social systems (Danermark et al., 1997). Critical realists therefore identify trends or patterns in data, which are referred to as demi-regularities that can be recognised through the coding of qualitative data collected through interviews (Fletcher, 2017).

The widely held view that the research philosophy ought to be determined a priori is challenged by Mclachlan and Garcia (2015), who outline their own experience in selecting a critical realist research philosophy only to encounter a constructionist one emerging in the data collection phase. Thus, while it is important to state the research philosophy that guided my study, it is noted that rather than being restricted to a philosophical orientation, research philosophy should not be detached from the methodology (Mclachlan & Garcia, 2015). It is not adequate to assume that the connection between the research philosophy and the methodology will be simple or automatic (Mclachlan & Garcia, 2015). The choice of a research philosophy for doctoral students who are new to social sciences can be challenging, specifically in the selection of a research philosophy and methods (Mclachlan & Garcia, 2015).

Next, I describe the ways in which data were collected in my study.

3.3 Research Approach

The research methodology is not restricted to discussing research methods but is concerned with the logic underlying these methods within the background of the study, explaining the reasons for employing specific procedures and not alternatives, in order to assess the results (Kothari, 2004). Data for qualitative research are collected through fieldwork where the researcher engages directly with participants (Patton, 1990). There are a few critical considerations in qualitative research, namely feasibility of the study, potential significance of the research, ethics and ethical practices, and commitment to the topic (Marshall & Rossman, 2014).

I chose to work with the qualitative research approach, which is performed across disciplines and subjects, with the overarching characteristic of being focused on and interested in the lives of people, groups and organisations in order to understand the meaning people place on their experiences (Miles & Huberman, 1994). According to Burgelman (2011:591):

> There is ample evidence that the legitimacy and usefulness of qualitative research are no longer questioned by most prominent scholars in administrative and organization science. …that developing novel conceptual thereby establish the clear and distinct contribution frameworks helps qualitative research play its potential bridging in theory development.

Typically, a qualitative approach is often regarded as the converse of a quantitative approach. However, each type of research serves a different purpose and has a different modus operandi and outcomes. As suggested by the name, quantitative research involves data that are expressed in numerical format that emphasises measuring and involves quantifying the results (Easterby-Smith et al., 2001). Similarly, qualitative research involves data that focus on people's experiences (Miles, Huberman & Saldana, 2014). Qualitative research is predicated on quality to establish the underlying reasons for social actions (Kothari, 2004). Another benefit of qualitative research is to understand the context within which participants are situated (Maxwell, 2008:9). Graebner, Martin and Roundy (2012:278) explain that three main characteristics of the qualitative method facilitate the collection of data that quantitative approaches can miss:

- Data are open-ended;
- Data can be concrete and vivid; and
- Data are often rich and nuanced.

My research design was an exploratory qualitative study. Given that I focused on people and the interactions between them and the organisation, my study was naturally aligned to a qualitative approach (Venkateswaran & Prabhu, 2010). Using qualitative methods, multi-dimensional and ongoing interactions between the organisation and the individual were discovered (Snow & Thomas, 1994). Qualitative research allows for a topic to be understood in great depth (Cleary, Horsfall & Hayter, 2014). Researchers can therefore understand how

people make sense of occurrences in their lives by engaging with people's thoughts and feelings (Sutton & Austin, 2015), what Bryman (2008:399) refers to as an "empathetic immersion in their world".

Although aspects of a grounded theory approach were employed in my data analysis, I did not intentionally bypass current theory in data analysis with a view to developing new theories (Corbin & Strauss, 2008), but I engaged with prevailing, albeit flawed, theory.

The characteristics of qualitative research according to Miles & Huberman (1994; Marshall & Rossman, 2014) are:

- Takes place in the natural world;
- Draws on multiple methods that respect the humanity of the participants of the study;
- Focuses on context;
- Is emergent and evolving rather than tightly preconfigured;
- Is fundamentally interpretive;
- Intense contact with the field;
- Deep, attentiveness on the research topics;
- Maintains the integrity of themes and expressions; and
- Gains a 'holistic' overview of the context under study.

The last characteristic was particularly appealing as it connected directly with my research topic.

Venkat Venkatraman (2008) argues that research methods in strategy research tend to be ranked according to the reliability and validity of the method as opposed to an alignment between method and research questions. He contends that different methods may be required in varying settings. Snow and Thomas (1994:471) explain that research focused on strategy and organisations was biased on quantitative approaches rather than qualitative methods, using "sterile data and that a clear tendency towards analysis of secondary data". Similarly, Molina-Azorin (2012) reviewed a total of 1 086 empirically-based articles published from 1980 to 2006 in the Strategic Management Journal. Of these, 78% of the articles used a quantitative approach, 15% a mixed-method approach, and only 8% used a qualitative approach. Although

there is a lack of qualitative research, the qualitative studies that have been undertaken have made significant theoretical and practical contributions to the field.

There are five specific reasons why qualitative data are utilised in studies related to strategy or strategic thinking (Graebner et al., 2012). Quantitative studies can neglect the nuanced complexities in organisations, and a shift towards more qualitative studies is needed to achieve greater balance (Snow & Thomas, 1994). Undertaking varied methodologies make strategy research more rigorous, improves the reliability and ease the theory-practice gap (Giovanni Battista Dagnino, 2016). In Table, I list the reasons why qualitative data are employed in strategy or strategic thinking studies, and how my study corresponds.

Table 3: Reasons why qualitative data is utilised in strategy or strategic thinking studies

Reasons why qualitative data are utilised in studies related to strategy or strategic thinking	Reasons that correspond based on my study
To build new theory when prior theory is absent, underdeveloped, or flawed.	There are specific gaps in the strategic thinking literature and these are highlighted in Section 1.1.
To capture individuals' lived experiences and interpretations.	My study aims to use the lived experiences of strategic thinking practitioners.
To understand complex process issues.	My study uses a multi-level structure, as gained from the literature review.
To illustrate an abstract idea.	Abstract ideas are identified in the bottom-up method of data analysis.
To examine narratives, discourse, or other linguistic phenomena.	Metaphors are a part of the data that I collected.

It is critical to ensure that the research questions drive the research method. As Molina-Azorin (2012) argues, many strategy researchers fall into the trap of adopting popular research methods without proper alignment to research questions and context. In my study, I made every effort to ensure alignment between my research question and objectives and the research process.

I describe the sampling used in the study next.

3.4 Sampling

The complexities of organisations give rise to different levels of analysis. The unit of analysis could be at a macro, meso- or micro-level, depending on what is being studied (Hage, 1980). For example, studying the organisation in totality involves the macro level, while the micro-level could involve studying the behaviour of individuals in an organisation. According to Hage (1980), a range of options in terms of levels of analysis presents a challenge to the generalisability of a study. It is therefore important to bear two considerations in mind that Kozlowski and Klein (2000) describe as important when engaging in an area that has the potential to be considered at various levels. The researcher needs to ensure that the level of a concept is clearly identified and that a concept at a higher level has the potential to be informed by a person's perceptions, experience or knowledge if the individuals are directly involved with or have acquired knowledge of the concepts (Kozlowski & Klein, 2000). The last point is particularly applicable to my study as I used the perceptions, experience and knowledge of individuals (the micro-level) as a window to gaining knowledge about the other levels. The unit of analysis is thus the individual engaged in strategic thinking. The first layer of my sample is the universities in SA, and the second layer of my sample is the individuals in the universities. In this way, I engaged with a multi-layered sample.

A considerable amount of literature on organisations use the individual as the primary unit (Venkat Venkatraman, 2008). While the focus on the individual may be useful, a counter-argument is that such individual action and interactions cannot be simply aggregated as a measure of the macro-organisational level without any understanding of the causality (Hodgson, 2012). Ployhart and Moliterno (2011:132) claim that an "emergence enabling process" acts as the mechanism that transforms the knowledge, skills and abilities of human resources at the micro-level across organisational levels to achieve competitive advantage.

Initially, I used purposive sampling to create a sample of the universities distributed across provinces and organisational type. Purposive sampling is considered useful in qualitative research (Brink, 1993) and interviews (Seidman, 2006). In purposive sampling, the overarching research questions are used to identify units of analysis that need to be sampled, and the sample is deliberately selected by the researcher. Purposive sampling is also referred to as deliberate sampling. In other words, the sample of participants is not randomly selected. One goal in

purposive sampling is to be able to select participants in a way that includes only those that are relevant to the research questions.

Another concern related to sampling is whether the sample is reflective of the general population. If not, the sample is considered to be biased and results cannot be generalised to the target population owing to under-representation of subgroups. However, in qualitative studies, the quality or richness of the data also has a bearing. Cleary et al. (2014:473) provide the following principles for selecting participants to ensure quality data:

- Small numbers are studied intensively;
- Participants are chosen purposefully;
- Selection is conceptually driven by a framework;
- It is commonly sequential rather than pre-determined; and
- A rationale for selection is necessary.

Bryman (2008) argues that purposive sampling may be contrary to random sampling, however, the former is not convenience sampling, which is a sample that becomes available to the researcher or is easily accessible. Although I started with a purposive sample, the institutional approvals were a major stumbling block to accessing the participants. At some point, purposive sampling assumed the nature of convenience sampling. As a single researcher with time constraints, I had to balance my time to ensure that the interviews were completed within a reasonable timeframe. Convenience sampling was used for enlisting interviewees based on its benefits of easy access and to promote the completion of the research (Salkind, 2012; Sedgwick, 2013). Moreover, there are practical considerations, such as the choices that a researcher has to inevitably make in the course the project, that must be taken into account so that the research gets done (Hannabuss, 1996).

I now move on to describing the research setting of the study.

3.5 Research Setting

The research setting is where the research will be undertaken in terms of the “physical, social, and cultural site” (Bhattacharya, 2016:2). Next, I provide an outline of the location and participants involved in this study.

3.5.1 Layer 1: Universities

As I investigated strategic thinking at public universities in SA, my overall setting was public universities. Public universities in SA have the vast share of students when compared to private universities. There are 26 public universities in SA, located across seven out of a total of nine provinces. The total enrolment in 2018 at public universities was 1 085 325[2]. Three of the 26 universities were established within the last five years and are therefore still in their infancy. The SA public HE system is set up in a tiered system in which there are research-focused universities situated at the top end, comprehensive universities in the intermediate layer, and the universities of technology (UoTs) enabling the attainment of technology-focused qualifications at the lower end (Leibowitz, Bozalek, Schalkwyk & Winberg, 2015). The 26 universities are categorised according to province in Table 4.

Table 4: Public universities in SA according to type and provincial location

Type of university	Number of universities	Number of provinces where universities are located
Traditional	12	7
Comprehensive	6	3
Universities of Technology	8	4

Table shows that in selecting a purposive sample, there is a level of complexity since the universities have two variables – province and type. Another factor that contributed as to whether or not I included the university in the sample was the gatekeeper's approval to conduct research at the university. At the outset, I selected 18 universities that were spread across SA and had a good spread of typologies, as shown in Table 5.

Table 5: Breakdown of sample selected for study per university type

	Total number of universities	Universities in initial sample	% of total population
Comprehensive	6	4	67%
Traditional	12	8	67%
University of Technology	8	5	63%
Grand Total	26	17	65%

[2] Data extracted from the Higher Education Information Management System of Department of Higher Education and Training (DHET).

3.5.2 Layer 2: Practitioners

In my study, the individual is the unit of analysis; more specifically, the strategic thinking practitioner. A considerable amount of literature on organisations use the individual as the primary unit (Venkat Venkatraman, 2008). The factors that contribute to the selection of participants include what data are required, the intent of the research, the risks, the benefits and credibility (Sobal, 2001). Participants are usually chosen based on their expertise – either their experience, knowledge, or both (Cleary et al., 2014).

Letters were sent to universities requesting approval to conduct research. Gatekeeper approval was received from 13 out of the 21 universities, and I was able to begin communicating with the participants via email to secure an interview. Participants from all universities agreed to participate in the study, however, I was only able to schedule interviews with participants from 11 of the 13 universities. The participants from two universities were either not available or cancelled interviews that were scheduled.

There are three broad categories of staff at universities in SA. These are academic, support and managerial or executive staff. Academics are those staff members who engage in teaching and research. Support staff are those who provide administrative support to the academic project. Managerial staff are those who are responsible for the management of the university and comprises of the senior leadership and management team, including the vice-chancellor, deputy vice-chancellors and executive deans of the faculties, senior directors and directors. Research in strategic thinking has extended to managers at various levels (Rouleau, 2013). I focused on staff members involved in the development and implementation of enrolment strategies; both managerial and support.

Another indicator used to select participants for the interviews was that they should be either Peromnes[3] six or above, as these employees are either middle managers or a part of the senior management of the university. Lower Peromnes levels were not recruited as the study focused on middle management and above. Middle management refers to the layer of managers who are subordinate to the senior management of the university, but above the junior management. Middle managers are important because they provide both a drive for and stability during times of change (Ignacio Canales & Vilà, 2005). Since this study is about strategic thinking, the

[3] The human resources grading system used at SA universities.

assumption was that there would be less of a consciousness around strategy and strategic thinking at the lower levels of the organisation; thus, Peromnes six was used as a minimum. In total, 33 participants agreed to be interviewed.

I now move to proving an overview of the participant profiles.

3.6 Bio-data: Participant Profile

Table 6 presents the institutional and biographical data for the participants who were interviewed.

In relation to the total number of universities, 11 universities were represented in my sample, which represents 42% of the public universities in SA. These universities were located across six of the nine provinces in SA. In respect to the three types of institutions, most of the interviewees, 16 or 48.5%, were from comprehensive universities. Thirty-six percent or 12 interviewees were from traditional universities, while 15% or five interviewees were from UoTs.

One university, C2, was the most accessible and I thus interviewed 14 individuals from this university. On the one hand, this suggests the university was dominant, but although 14 interviews were performed, I did not use all of the individuals in a uniform manner. Still, the fact that C2 was the dominant university in the sample was reasonable because it is the only university where I was able to access different categories of staff members (top management as well as support staff within faculties and at the institutional level). This enriched the data by giving access to the narratives of a variety of perspectives from the same organisation. Furthermore, I took every measure to ensure that my findings were not biased towards one university because I had the opportunity to do more interviews at this university.

Table 6: Participant profiles

University type	University Abb.	Position Abb.	Position - General	Number of years in HE	Race	Gender	Approx. number of times quotes were used
Comprehensive	C1	DVC	Deputy Vice-Chancellor	30	W	F	7
		DIRP	Director: Planning	24	W	F	15
	C2	PF1	Planner – Faculty	10	I	F	14
		PF2		23	W	F	10
		PF3	Registrar – Faculty	15	B	F	2
		PF4		16	I	F	2
		RI	Registrar – Institution	25	W	F	13
		DH	Dean: Humanities	11	W	M	19
		DIRD	Director: Data Governance	25	W	F	14
		DS	Dean: Science	20	C	F	12
		DE	Dean: Education	28	W	F	14
		SDP	Senior Director: Planning	18	W	F	18
		DM	Dean: Management	21	W	M	7
		SMA	Senior Manager: Admissions	8	B	F	2
		DSEC	Director: Student Enrolment Centre	28	W	M	2
		SDAP	Senior Director: Academic Planning	21	I	F	14
Comprehensive Total				**16**			**165**
Traditional	T1	DVC	Deputy Vice-Chancellor	26	W	F	13
	T2	SDP	Senior Director - Planning	22	W	F	9
	T3	PI	Planner – Institution	24	I	F	7
	T4	PI	Planner – Institution	20	W	F	5
		DIRP	Director: Planner	22	W	M	9
	T5	DIRQ	Director: Quality and Business intelligence	42	C	M	11
		DIRP	Director: Institutional Planning	18	W	F	7
	T6	PI	Planner – Institution	29	I	F	14
		RI	Registrar – Institution	30	W	F	21
		DBI	Director: Business Intelligence	33	W	M	7
	T7	DVC	Deputy Vice-Chancellor	23	W	F	12
		PI	Planner – Institution	15	C	F	6
Traditional new Total				**12**			**125**
University of Technology	U1	DIRP	Director: Planning	32	W	M	7
	U2	DVC	Deputy Vice-Chancellor	27	B	M	13
		DS	Dean: Science	21	B	M	9

University type	University Abb.	Position Abb.	Position - General	Number of years in HE	Race	Gender	Approx. number of times quotes were used
		DM	Dean: Management	28	B	M	3
		CIO	CIO & Executive Director	20	I	M	18
University of Technology Total				**5**			**50**
Grand Total				**33**			**340**

There were four participants (C2-DH, C2-SDP, T6-RI and U2-CIO) from whom I drew more extensively than others for a combination of reasons, including experience and perspective. I tried to use the data in a way that privileges the story of the individuals rather than the organisations. My study did not use organisations as case studies but considered the development and implementation of enrolment strategy as the 'case' with the actors. Nevertheless, there are instances where the collective experiences of individuals were commented on.

Table 7 illustrates the breakdown of participants in terms of their positions. There is a good spread across the top levels of the institution, from director to top management. The largest cohort is directors, followed by top management and faculty deans. The nine institutional and faculty planners (27.3%) all report either to the dean directly or a director.

Table 7: Positions of the participants at the time of the interview

Position – General	Total	% of sample
Top Management (DVC, Registrar etc.)	7	21.2%
Faculty Dean	6	18.2%
Senior Director	3	9.1%
Director	8	24.2%
Institutional Planner	5	15.2%
Faculty Planner	4	12.1%
Grand Total	**33**	**100.0%**

Figure 7 shows the profile of the participants based on race per university type. In terms of the policy directive that the 1997 White Paper delivered, the transformation of HE was stressed, most notably in relation to remedying racial inequalities. Breetzke and Hedding (2016) suggest that the transformation of the academic staff body is influenced by several factors and is occurring at a slow pace. When considering the participant profile from a racial perspective, it

appears that there are very few high-level black staff members in the offices that deal with the development and implementation of enrolment strategies.

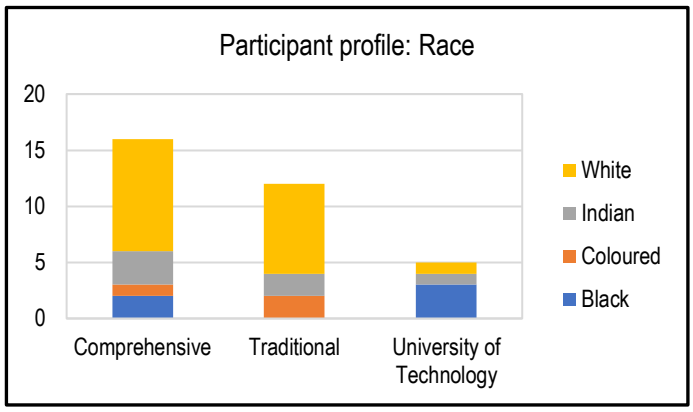


Figure 7: Participant Profile – race per university type

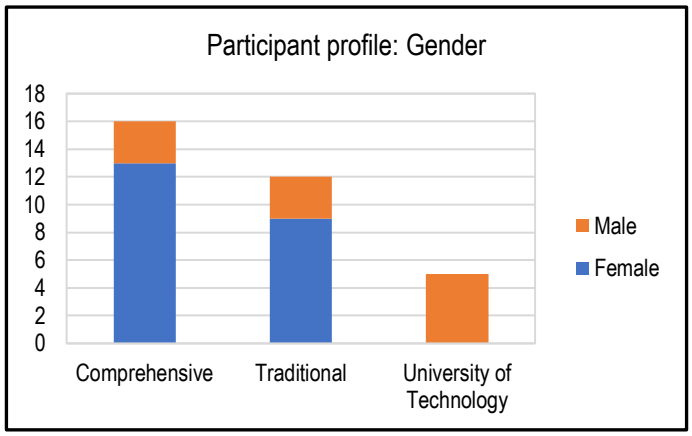


Figure 8: Participant Profile – gender per university type

The above graphs depict that the majority of participants were white. When viewed together with the gender profile, it is clear that most of the staff were female and, as shown in Table 8, white females accounted for 39.3% of the participants.

Table 8: Race and gender breakdown of participants

Gender & Race	Black	Coloured	Indian	White	Grand Total
Female	6.06%	6.06%	15.15%	39.39%	66.67%
Male	9.09%	3.03%	3.03%	18.18%	33.33%
Grand Total	**15.15%**	**9.09%**	**18.18%**	**57.58%**	**100.00%**

White females are in positions such as directors, senior directors, DVCs, registrars and deans. Given the literature claiming insufficient gender representation of females in senior management and middle management levels, it appears that some progress has been made by universities in the planning areas and offices, but the percentage of combined black female and male staff is still disproportionately low at 15.15%. It has been argued that in SA, discrimination against black women as a collective still exists, particularly at historically white institutions (Zulu, 2017). While Habib (2016:36) explains that there are some compromises that are required in "equally important, competing imperatives", he suggests that leadership must find ways of attracting more black staff. The biographical data shows there is a need to build capacity in the planning offices by recruiting and training more black staff members.

As shown in Table 9, only five staff members (15.2%) in the sample had been working in HE for 15 years or less. The vast majority – 28 staff members (84.8%) – had been at HE organisations for more than 15 years, with the majority at the institutions between 21 and 25 years. This profile is consistent across all university types, as seen in Figure 9. Although the participants may not have all been within their specific position for a long time, it does suggest that they were all experienced and familiar with the nature of an academic institution. This is an indication of a stable, older cohort and suggests, as noted above, a need for younger black staff who can be trained and capacitated to take over as the next generation.

Table 9: Participant profile – number of years working in HE

Number of years in HE - category	Total	Total (%)
6-10	2	6.06%
11-15	3	9.09%
16-20	6	18.18%
21-25	11	33.33%
26-30	8	24.24%
31-35	2	6.06%
over 35	1	3.03%
Grand Total	**33**	**100.00%**

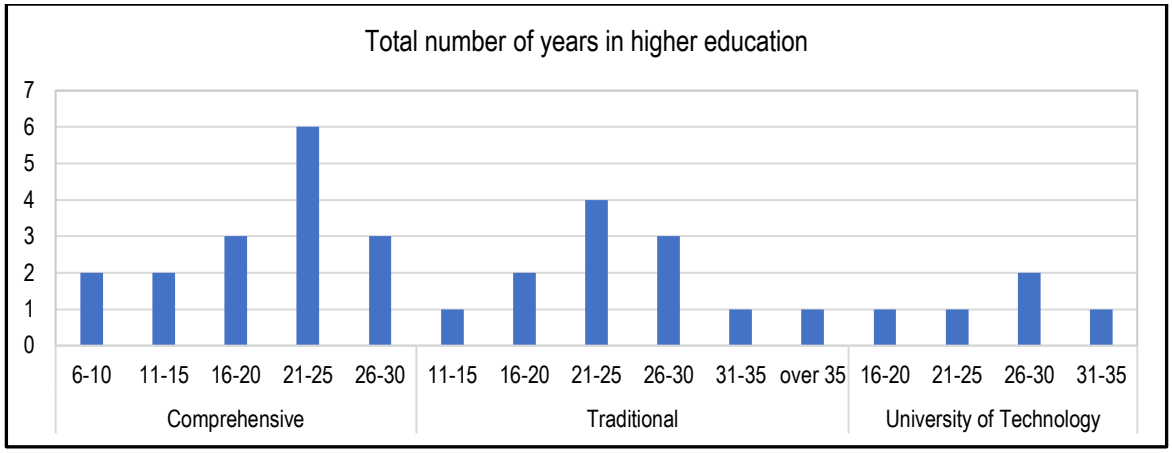


Figure 9: Participant Profile – total number of years per university type

3.7 Techniques and Procedures

While bearing in mind that the research methods ought to be aligned to the research aims and objectives, the choice is also considered to be a "political and moral one" (Seidman, 2006:13). In other words, the researcher has to make a number of decisions during each step, including the selection of the techniques and procedures. In the sections below, I explain the methods I selected and provide the reasons for their selection. Figure 10 shows the research methodology process that I undertook. Thereafter, I discuss the pilot interviews.

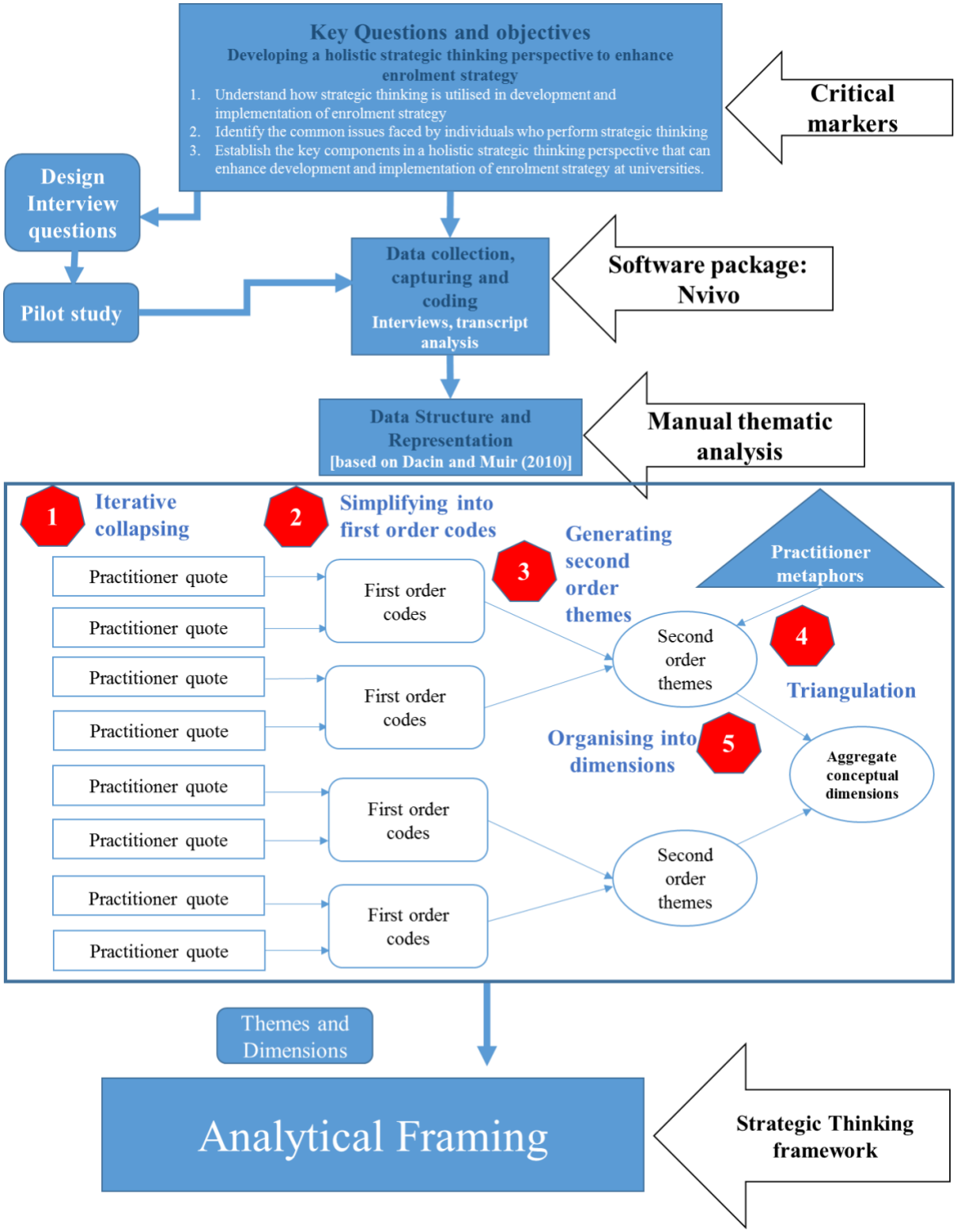


Figure 10: The research methodology process

3.7.1 Pilot study

I first piloted the interviews with 20 questions and three individuals who provided feedback, as shown in Table 10.

Table 10: Feedback obtained from pilot study and adjustments made to interview guide

Pilot interview	Feedback	Adjustments made
Practitioner C2-DH	The participant explained that they felt uncomfortable when I asked them to draw a picture. At that time, I was exploring a multi-modal study. Although a picture was provided, I needed to consider the possible discomfort I would be placing the participants in. The participant suggested that I mention the name and surname of the participant as well as the date and time of the interview at the beginning of each interview recording.	I decided to remove the idea of using a picture to elicit a response and rather introduce a metaphor or analogy. I implemented the suggestions regarding the capturing of the interview details at the beginning of the recording.
Practitioner C2-DIRD	The participant thought that I was 'testing' her strategic thinking. This was useful feedback as I realised that the topic of the study could make participants feel as though they were being tested and therefore place them in an uncomfortable situation. This would contradict the ethical values I was trying to uphold in my study.	In the introduction to the interviews, I introduced a sentence that indicated to participants that their strategic thinking was not being tested in any way. The interview was very long and could be shortened with fewer questions.
Participant C2-SDP	The participant suggested changes to the ordering of the questions so that the more general questions that were not focused on strategy, per se, could be asked upfront in order to make the participant feel more comfortable and to create more of a rapport with the participant. Two questions were considered to be asking similar things, in other words, there was some duplication. Some questions could be phrased more clearly. The participant suggested that I reflect on how I could use new phrasing to elicit more stories and experiences rather than technical detail to which a topic like enrolment planning and management might be prone. As it was focused more on the individuals, the participant suggested that a sentence be added to the introduction that indicated that the study is not a study of organisational effectiveness. This was considered important to make the participant less likely to think that they needed to represent the organisation in a specific way.	The ordering and wording of approximately six questions were changed. One question was removed to avoid duplication. The wording of some questions was used to try to 'soften' the questions so that participants shared stories and experiences. A sentence was added in the introduction to indicate that the study was not about organisational effectiveness and that I was interested in their stories and experiences.

I explained to each participant that they were a part of the pilot interviews and that I would require their feedback either during the course of the interview or at the end. I selected participants for the pilot study on the basis that I had a relationship with them and that they would feel comfortable to provide feedback and, if necessary, criticism on the questions. I reflected that if I selected people who did not know me, I would be placing them in the awkward position of critiquing someone they did not know, which may have caused well-meaning people to overlook certain challenging areas in the interests of encouraging me in my study, or not wanting to come across in a negative way.

Once the pilot phase was completed, I made the various adjustments to the interview questions. The final list of questions was reduced to 15 questions with a different order and, at times, phrasing. The pilot phase was critical to the enhancement of the research questions in the following ways:

- Taking the participants' point of view into consideration, especially things that would make them feel uncomfortable or uneasy. In that sense, a pilot phase is essential to deeply embed ethical values regarding causing discomfort to people;
- Making the questions easier to understand by making the wording clearer;
- Ensuring that the initial questions strengthened the interview rapport;
- Including important information that puts the participant at ease in the introduction to the interview; and
- Making the researcher more effective in the interview process.

What follows is a description of the various research instruments that were used to collect the data.

3.7.2 Interviews

Interviews are widely used for qualitative data collection as they are 'rich and detailed' (Baker & Edwards, 2012; Denscombe, 2014), and are thus considered an effective tool to learn about the social domain (Roulston, 2014). According to Seidman (2006), interviewing involves creating a narrative through progressively and iteratively choosing meaning in experiences, reflection, ordering and ultimately sense-making as people use language to represent their understanding. He argues that, as such, interviews give expression to being human through

stories and inquiry. Interviews give access to the interviewee's experiences, perspective, opinions, feelings, and knowledge (Patton, 1990; Hannabuss, 1996). The aim of an interview is to get the participant to re-enact their experiences related to the purpose of the study and the topic being researched (Baker & Edwards, 2012). The interviewer must make a number of decisions to ensure that he or she facilitates the provision of relevant information and ensures that the participant remains focused (Roulston, 2014).

Another benefit of interviews is that there are various types of interviews with varying degrees of structure. In general, interviews are pre-arranged for a specific time and place (DiCicco-Bloom & Crabtree, 2006). There are three main categories, namely, structured, unstructured and semi-structured interviews. Researchers can select one type or a combination, but the choice is generally aligned to the research paradigm and ensuing methodology (Pawson, 1996; Cleary et al., 2014).

A drawback of using interviews is that it involves an intensive process. The researcher must first conceptualise their research, then gain access, establish contact (which requires making arrangements and is subject to availability of participants), followed by a process of interviewing, transcribing and verification (Mauthner & Doucet, 2003). However, interviews are still a popular data gathering tool used in research related to strategy (see Balogun & Johnson, 2005; Jarzabkowski & Kaplan, 2010; Jarzabkowski, Burke & Spee, 2015; Holstein, Starkey & Wright, 2016; Panayiotou, Putnam & Kassinis, 2017).

Structured interviews are standardised and usually generate quantitative data; they are often employed in quantitative studies; in particular, survey research (DiCicco-Bloom & Crabtree, 2006; Bryman, 2008). In structured interviews, there is total alignment between the responses that the interviewee produces and focus of the research, so the researcher accesses facts using the exact same questions and in the same order, also referred to as 'identical stimulus', in order to make rational comparisons (Pawson, 1996; Bryman, 2008). The belief is that exact, consistent questioning will yield all the relevant data (Qu & Dumay, 2011). Thus, through structured interviews, researchers can collect accurate, valid and reliable factual data, but responses from the participants are generally brief to enable data coding and analysis (Bryman, 2008; Qu & Dumay, 2011). As my study used a qualitative methodology specifically interested in the participant's viewpoint, structured interviews were not considered to be an option.

Unstructured and semi-structured interviews are sometimes referred to as an envelope of ‘qualitative interviews’, pointing to the fact that these types of interviews are generally both utilised in qualitative research. These two classifications of interviews have specific characteristics that include less or no structure and order, a more discursive, emergent and responsive nature (Bryman, 2008). Both types of interviews aim to collect data but there are differences in method.

Unstructured interviews are likened to a typical conversation in which there is a brief prompt or question asked, followed by an unrestricted response, except for follow-ups. In this format, the interviewer is not dependent on pre-set questions but has more prerogative to interact flexibly in terms of content and order, including the freedom to decide what to include in the recording (Kothari, 2004). Data are usually simultaneously collected via observation in unstructured interviews (DiCicco-Bloom & Crabtree, 2006). Here, it is assumed that prior to the interview, the interviewer does not know what questions are needed to obtain the relevant data (Qu & Dumay, 2011). Criticism of unstructured interviews includes the fact that the collected data would symbolise a perspective that is time and context-specific and prone to biases from both the interviewer and interviewee (Kothari, 2004). Unstructured interviews tend to be laborious and therefore necessitates an interviewer with significant expertise, who is adaptable to various circumstance and perspectives (Kothari, 2004; Qu & Dumay, 2011).

Considered as a means to moderate between the opposing high degree of standardisation in the structured and nebulous nature of the unstructured interviews, semi-structured interviews are the most frequently used type of interview (Pawson, 1996; Qu & Dumay, 2011). However, Pawson (1996) contends that the semi-structured interview should not be regarded as a compromise, but a means to a thorough and multifaceted data source. In a semi-structured interview, researchers prepare questions prior to the interview, which is known as an interview guide, interview schedule or checklist, but there is still a degree of flexibility as the interviewer has the freedom to adjust the order, pace and include spontaneous questions based on the interviewee’s responses. I followed Bryman's (2008) method in the development of the interview guide.

Kvale (1996:88) presents the seven stages of an interview investigation:

- Thematising: Formulate the purpose of the investigation and describe the concept of the topic to be investigated before the interviews start.
- Designing: Plan the design of the study, taking into consideration all seven stages, before the interviews start.
- Interviewing: Conduct the interviews based on an interview guide and with a reflective approach to the knowledge sought.
- Transcribing: Prepare the interview material for analysis, which commonly includes a transcription from oral speech to written text.
- Analysing: Decide, on the basis of the purpose and topic of the investigation, and on the nature of the interview material, which methods of analysis are appropriate.
- Verifying: Ascertain the generalisability, reliability, and validity of the interview findings. Reliability refers to how consistent the results are, and validity reflects whether an interview study investigates what it intended to investigate.
- Reporting: Communicate the findings of the study and the methods applied in a form that lives up to scientific criteria, taking the ethical aspects of the investigation into consideration, resulting in a readable product.

The interviewee is not restricted in the way in which they respond (Bryman, 2008). Planned and spontaneous probing to elicit further and more elaborate responses is an option open to the interviewer in a semi-structured interview (Qu & Dumay, 2011). The assumption in semi-structured interviews is that interviewees understand the questions and the interviewer is sensitised to the diversity in interviewee's worldviews, thus the interviewee's responses to similar questions could differ from one to the other (Qu & Dumay, 2011). Thus, semi-structured interviews differ from structured interviews that do not accommodate variability.

Generally, questions to all the interviewees are similar (Bryman, 2008). The questions can be ordered or grouped in a specific way that will enhance the flow of the interview (Schensul & LeCompte, 2013). Qu and Dumay (2011) suggest developing various themes to enhance the interview flow. Schensul and LeCompte (2013) make the following suggestions on the ordering or grouping of questions:

- Begin with simpler questions and move to more complex questions;
- Cluster questions with similar topics together;

- Move from concrete to abstract concepts; and
- Move from the least sensitive to the most personal.

It is unsurprising that interviews are one of the most popular, if not the most popular, research instrument (Hannabuss, 1996; Seidman, 2006; Bryman, 2008; Mclachlan & Garcia, 2015). Interviews were considered the ideal research instrument for my study because, through interviews, I would be able to identify the various perspectives of strategic thinking in the development and implementation of enrolment strategy, through the eyes of the participants.

All of my data were collected continually over a period of approximately six months, from October 2018 to end of March 2019. I conducted a series of 33 semi-structured interviews in this period. The interview duration was planned for 50 minutes, however, I had to adjust the time based on the participant's availability. Through this process, I made notes of what participants were saying so that I could remember essential points that I could probe further. I tried to do this in a way that would not break the connection that I had with the interviewee and not interfere with the flow of conversation.

I followed the advice of Pisapia and Robinson (2011:13), who used interviews for identifying and gaining insight about the "process, topics, keywords and key concepts to identify elements of strategic thinking" instead of direct use of the words 'strategic thinking'. Thus, unless an interviewee mentioned the term of their own accord, allowing me to probe further, I did not refer to 'strategic thinking' in the interview. The initial phase of interview preparation required me to develop as much expertise in the topic of strategic thinking and the development and implementation of enrolment strategy so that I could ask informed questions. I did not ask any questions that could have been answered through documented sources in order to use time effectively and as a means to access a more personal account of the individual's understanding, meaning and stories (Moezzi, Janda & Rotmann, 2017; Gabriel, 2018). In this study, I drew narrowly on the broader definition of storytelling as a means to access the patterns that individuals identify through their life (Gorzynski, 2018).

According to Kvale (1996), it is critical to consider the specific goal of the research to avoid collecting excessive data. Interview questions were prepared in advance, however, a flexible, exploratory approach was adopted to enlist more details wherever required so as not to stifle

the flow of conversation. Similarly, the duration of the interview was flexible, depending on the preference of the interviewees (Seidman, 2006). The questions were informed by the themes of the conceptual framework that I developed and the interviews were recorded. The list of final questions is shown in Table 11.

Table 11: Final interview questions used in the study, rationale and level of inquiry

Question	Rationale	Individual/ Organisation/ National
1. What is your position at the university?	Obtaining background, context and biographic information	Organisation and individual
2. How long have you been working in HE?		
3. How long have you been working in your current position?		
4. In relation to the development and implementation of enrolment strategy, what do you do? What activities do you perform?		
5. When you think of the development and implementation of enrolment strategy, what image or metaphor comes to mind?	Conventional or creative expressions	Organisation and individual
6. What is the enrolment strategy of the university?	Strategy as an object	Organisation
7. What is the purpose of the enrolment strategy at the university?	Measures of success and purpose	Organisation
8. How does the purpose of the enrolment strategy fit within the overall strategy of the university?		Organisation
9. What does success look like in relation to enrolment?		Organisation and individual
10. What significant issues, concerns and/or obstacles do you encounter when trying to develop and implement the enrolment strategy?	Strategy process, content and context	Organisation and individual
11. What organisational issues affect you when performing your job in relation to the enrolment strategy?	Strategy process, content and context	Organisation and individual
12. What would you consider to be your strengths in the context of enrolment?	Emotions, personal mastery	Individual
13. What do you struggle with in developing and implementing enrolment strategy?		Individual
14. What emotions does it invoke when you think about your role in relation to enrolment?		Individual
15. How do you feel about the current issues that affect enrolment strategies at public universities?	Strategy process, content and context	National, organisation and individual

There are a number of considerations in terms of the format and way in which a semi-structured interview is conducted, and it is important to prepare adequately. Although Schensul and

LeCompte (2013) make the above suggestions, they acknowledge that there are varying, and at times contradictory, opinions on the format of a semi-structured interview. One reason for possible conflicts on the format and process of interviews could be differing approaches associated with distinct philosophical frameworks (Smith & Elger, 2012). Some researchers recommend that interviewers create a rapport with the interviewees at the beginning by avoiding any questions that could intimidate the interviewees, whereas others argue that the key information should be extracted upfront to safeguard against interviewer fatigue. Schensul and LeCompte (2013) concede that often, the cultural orientation of the interviewee may determine the appropriate interview stance, and they suggest that a pilot study be performed as a test to adjust the timing and order. As Qu and Dumay (2011:247) argue:

> The setting of the interview, the perspectives of the interviewee and the personal style of the interviewer all come together to create a unique environment for each interview. Therein lie the challenges for interviewers requiring responsiveness and sensitivity during the interview to get the "best" possible responses.

There are several different types of questions that an interviewer can draw on, such as introducing, follow-up, probing, specifying, direct, indirect, structuring and interpreting questions but silent pauses also play a role (Bryman, 2008). Tolerating and allowing pauses signal an opportunity to the interviewee for reflection and further revelation. Doyle (2004 in Qu & Dumay, 2011) claims that tolerating silence is important because silence allows interviewees the opportunity to be the ones who initiate conversation. In my experience, initially, I felt the silences were awkward, but I was able to develop my tolerance of silence as I continued through the process.

The relationship between the interviewer and interviewee and the interviewer's skills are critical to the interview process and outcomes (Seidman, 2006). The semi-structured interview generates a perspective that is shaped by the interaction and is sensitive to the interviewer's orientation, including gender, race, socioeconomic class and ethnicity (Qu & Dumay, 2011). It is critical to develop and maintain a constructive connection with the interviewee; listen intensely; sustain the interviewee's responses without unnecessary interruptions; prevent interviewer biases; be patient and tolerate silence to elicit further interviewee responses. Careful listening is an essential skill for the interviewer (Qu & Dumay, 2011), so humility is vital (Seidman, 2006).

Seidman's (2006) advice was particularly significant because I was performing insider research and had a vast amount of experience and knowledge of the research topic. I had to, therefore, perform bracketing, which involves withholding preconceptions (Miles & Huberman, 1994). It required conscious effort on my part to be able to evoke a non-judgemental, no expectation, sincerely curious and encouraging attitude during the interviews. However, in my experience, I found humility flowed easily in the interview process. Each time I sat next to or opposite the interviewee, I was acutely aware of the fact that despite a busy schedule, each individual had created time to contribute to my study without any external incentive, apart from their internal motivation, collegiality and sense of encouragement. As soon as one gains access it is imperative to conduct the interview as finding time, especially for 'elite interviewees' is a challenge (Liu, 2018). In encountering colleagues from other universities who received me with great positivity and enthusiasm to participate, engage and share their stories, I felt a sense of appreciation and gratitude that enabled humble inquiry.

The intricacies involved in interviews require interviewers to cultivate their skills as the interviewer impacts on each interview (Qu & Dumay, 2011). Thus, while it was critical to remain humble, it was also essential to remain conscious of what outcomes needed to be achieved in the interview so that I was not distracted, especially when interviewees went off-topic. The fundamental basis of my conscious balancing was an ethical consideration related to power dynamics and the risk of exploitation of the interviewee (discussed further in Section 3.9).

Apart from the complexity of balancing a number of considerations during the interview itself, there are other challenges associated with interviews. Performing interviews is labour intensive, requiring time and money (Hannabuss, 1996; Seidman, 2006). At a practical level, the method also tends to require more time than others, and is dependent on the interviewer's experience. Moreover, prior to the actual interview, there is planning and designing the interviews, identifying interviewees, obtaining permissions for access, making contact and arrangements with interviewees, managing the schedule and rescheduling interviews if needed, travelling to interviewees, and making the necessary logistical arrangements for the travel. All of this was done while balancing personal and work commitments. Consequently, my interview timelines had to be extended. Undertaking interviews during work hours created a level of complexity in the process. There was one instance in which an interview was postponed as a

result of my own work schedule. The availability of participants was another factor that added to the logistical complexity. Two participants who had agreed to be interviewed eventually declined the interview closer to the time because of work commitments and they were unable to accommodate me at any other time.

The phase that took significantly longer than anticipated was seeking permission from gatekeepers to gain access to participants to conduct interviews at the universities. While busy with the development of the interview questions, I was simultaneously seeking approval from the institutions to interview the relevant staff members. Although ethical approval had been obtained for my study via the University of Bath, there are separate processes at universities in SA to obtain permission to collect data from staff at the universities. This stage was extremely labour and time-intensive and eventually determined the number of participants I was able to include from the original sample. As I was working in the field of enrolment planning at one of the public universities at the time, I used my network to identify applicable gatekeepers in order to gain access. Identification of gatekeepers (Denscombe, 2014) and having an established network of contacts (Saunders et al., 2009) promotes accessibility to research sites.

The processes at each university, however, was different. Each approval required the submission of different documents, often including the research proposal and ethical approval. While some universities' processes were relatively quick, others took a number of weeks and, in some cases, months to respond. Obtaining institutional permission was thus a time-consuming task that required a significant amount of my capacity, thus extending the length of the research project by a few months. In a few instances, no responses were received from the universities while others engaged in some communication, but after a few weeks of communication, they stopped responding and I had to move on to other universities. The non-compliant universities were dropped from the list.

Table 12: Breakdown of universities included after gatekeeper approval was received

	Number of universities where gatekeeper approval was received in time	% of universities of total population that were interviewed	% of sample where participants were interviewed	Number of participants interviewed
Comprehensive	2	33.3%	48.5%	16
Traditional	7	58.3%	36.4%	12
University of Technology	2	25.0%	15.2%	5
Grand Total	**11**	**42.3%**	**100.0%**	**33**

As the most common qualitative data collection instruments (DiCicco-Bloom & Crabtree, 2006; Bryman, 2008; Qu & Dumay, 2011), there is a plethora of research on planning for and conducting interviews. There is advice on the structuring of interviews in terms of the questions, suggestions on what questions to avoid and techniques to use, and the nuances that need to be understood between the interviewee and interviewer. As I entered my first interview, the excess of advice, logistical issues and balancing made it challenging. A large component of literature on interviews makes the assumption that the researcher has time, but in my situation, time management was critical. Being from a natural sciences field, these were the first comprehensive research interviews I was performing. As I gained practice and experience through the pilot interviews, I began to feel more confident and relaxed.

I followed Dameron and Torset (2014) interview format by beginning with obtaining information on the interviewee's background and career history prior to discussing the interviewee's responsibilities and activities related to development and implementation of enrolment strategy. The majority of interviews were scheduled for 50 minutes, however, some were around 90 minutes while others were approximately 30 minutes.

3.7.3 Metaphor analysis

A metaphor facilitates understanding and experience of something in one category in terms of another category. Lakoff and Johnson (1980) argue that metaphors are powerful sense-making tools that can assist in developing a reality different from prevailing reality. They argue that metaphors are beyond a simple language concept but extend to being a metaphorical concept because people think in ways that are metaphorical. As such, metaphors can serve as an effective dual mechanism in terms of gaining an understanding and influencing experiences of people in organisations (Skorobohacz, Billot, Murray & Khong, 2016). Every metaphor is

based on the foundational component of experience (Lakoff & Johnson, 1980). According to Miles et al. (2014:280-281), metaphors are:

- A partial abstraction that provides richness and complexity;
- Data-condensing devices, taking several particulars and making a single generality of them;
- Pattern-making devices for both the researcher and subjects;
- Allow the researcher to step back to an inferential or analytical level;
- Ways of connecting findings to theory; and
- Effectively unites reason and imagination.

There are different ways in which metaphors can be used and analysed in qualitative research. I elicited metaphors during the interview process, directly and verbally, from the research participants as a way of yielding "metaphoric transformation" that produced intimate, profound, interesting and important descriptions (Schmitt, 2005:363). Moreover, I used the metaphor as an ice breaker. Cameron (1999) breaks down metaphor analysis into three steps that involve the collection of the metaphors, then simplifying to conceptual metaphors, and thereafter employing the data obtained to propose possible associations.

Lakoff and Johnson (1980:139) state that there are two types of metaphors, namely "conventional" and "creative and imaginative" metaphors. Conventional metaphors are instinctive or unconscious ways of providing structure to sense-making of language. Creative and imaginative metaphors are created deliberately with the intention of offering new knowledge or practice.

I followed Skorobohacz et al's. (2016) lead by regarding metaphors as a semantic and sense-making device that expresses a person's interpretation of their particular circumstances and experience rooted in tangible action. After the initial ice breaker, during which time I asked participants about themselves, my first question was **"What metaphor comes to mind when you think about development and implementation of enrolment strategy?"** The question yielded successful results as participants did not expect an alternative type of questioning. In every case, the individual stopped and took a few moments to think about the metaphor before answering. They appeared to enjoy the creative aspect that was introduced through the use of a metaphor and used it to express both their cursory and inherent experience as they reflected

on the development and implementation of enrolment strategy. It was evident in many participants that they found the use of a metaphor enjoyable as they became more animated and laughed in the course of their description.

I used the metaphors as a way of triangulating the interview data. I followed the pragmatic method for metaphor analysis used by Skorobohacz et al. (2016), who integrated parts of both content and thematic analysis to find the right mix between being rigid and flexible. Apart from collecting directly elicited metaphors, I also highlighted parts of the interview that qualified as a metaphor (conventional or creative). Here, I identified parts of interviews that provided a description as either "being like" or "feeling like" another thing (Skorobohacz et al., 2016:1057). I then merged all the metaphors into the participant breakdown table so that I could keep the connection with the participant. I found that embedded metaphors were used; in other words, metaphors that were used in the description of the metaphors itself. I highlighted words and associations and attempted to gain an overall sense of the metaphor before delving into a more specific, nuanced explanation.

Next, I describe the data collection process.

3.8 Data Collection Procedure

3.8.1 Scheduling and undertaking interviews

Each participant in the pilot study and the post-pilot phase was sent an email inviting them to participate in the study. The email contained a letter of invitation and an informed consent form (Appendix 1). The letter of invitation provided the title and background of the study. The letter also outlined why the person had been selected, the duration of 50 minutes and the venue. Full confidentiality and anonymity were emphasised throughout the research process. Participants were given the option of an interview via Skype or WhatsApp video call if they were comfortable with that medium. In three cases, owing to poor connections, WhatsApp audio and landline interviews were used. WhatsApp video calling proved to be more popular amongst participants compared to Skype, since some did not utilise Skype often and preferred the convenience of using their cell phones.

In total, 33 interviews were conducted, of which 26 were done in person, three via WhatsApp video, one via Skype, one via WhatsApp audio, and two via landline calls. The informed

consent form was kept as simple and to the point as possible to not intimidate the participants. A copy can be found in Appendix 1. The form covered points such as:

- Voluntary participation;
- Permission for notes to be taken and the audio recording;
- Flexibility to withdraw at any point in the process without having to provide a reason;
- That they fully understood their role and was provided with a background to the study; and
- Confirming that their personal details (and any identifying data) would be kept strictly confidential.

Participants confirmed their participation and preference of interview times via email. All interviews were carried out during work hours and, where possible, in the privacy of people's offices. The first participant was unable to be interviewed in her office because of an open plan set-up so I had to book a venue. In four cases, the interviewees were only available for around 30 minutes and the interview was conducted in an open area that was relatively noisy and I had to adjust the distance of the recorder depending on the venue. In these instances, I was concerned about the quality of the recording and had to place the recording device very close to the interviewees. Nineteen interviews lasted between 60 and 90 minutes, while nine interviews lasted between 30 and 60 minutes. The total duration of the recordings was 31 hours and 45 minutes.

On the day of the interview, I began by welcoming the participants to make them feel comfortable. I provided a brief introduction and asked if they had any questions. All three pilot study participants felt that they were sufficiently briefed in the invitation letter. I reminded participants of their rights and the requests I was making that were already indicated in the informed consent form. Once participants agreed, we signed the informed consent form. Throughout the study, none of the participants requested a copy of the informed consent form. After the informed consent form was signed, I began the audio recording of the interview, and I checked the recorder (my cell phone) throughout in order to make sure it was working.

Interviews were conducted from October 2018 to December 2018 and then stopped as a result of universities being on recess. Since January is the busiest time for staff involved in the development and implementation of enrolment strategy, I was unable to perform any

interviews; this was factored into the interview schedule. Interviews continued in February 2019 and in the interim, I was journaling and allowing for the transcription of interviews.

3.8.2 Transcription

A particularly labour-intensive stage of interviews is the process of transcribing the interviews, when the interviewer responses are converted into words that can be analysed (Sutton & Austin, 2015). I undertook to transcribe the first two interviews so that I could understand the process and understand what requirements I needed to set for a professional transcriber.

Sutton and Austin (2015) elaborate on the process for transcription of the interview as follows: transcribe the recording verbatim; number the lines; read the transcript while listening to the audio for correction purposes; anonymise the transcript; insert notations where applicable; insert punctuation and any other annotations to capture contextual information. I followed all these steps except for numbering the lines because I used electronic software to store my data.

I transcribed the pilot interviews to get a feel for the interviews. Thereafter, a local professional transcriber was employed and paid. Specific guidelines were provided on how the interviews were to be captured, including the format and how to indicate inaudible words. Initially, only one interview was provided so that I could determine whether the quality of the transcription was acceptable. After receiving the first interview, I listened to the interview while reading through the transcript. Once I was convinced that the quality of the transcription was acceptable, I began to allow more interviews to be transcribed.

At one point, I had to use an alternative transcriber, and I elected to use a professional international transcriber, i.e. a transcriber based in another country. Unfortunately, the second transcriber's quality was poor and some of those interviews required significantly more data cleaning than others. What became apparent was that the local transcriber was able to cope with the local accents better than the international transcriber. I thus found it more favourable to use a local transcriber compared to an international one.

In total, there were 724 pages of data. Once transcripts were received, the process of data cleaning began. As briefly described above, this involved listening to the interviews while reading the interviews. For this purpose, interview enhancements were employed to slow down

the speed of the interviews to accommodate an acceptable reading pace. If a mistake was identified, the correction was made while the interview was paused. All 33 interviews were listened to at least twice each in order to clean the transcriptions sufficiently. On average, the process of cleaning an interview that lasted 60 minutes would take between 4 to 6 hours, depending on the transcription quality. During this process, interesting points were highlighted and notes were made.

After all the interviews went through the first round of cleaning, a process of anonymising commenced. This involved identifying any piece of information that could potentially be used to identify a participant, including names of participants, names of colleagues, names of departments or faculties, university location or unique terminology. A final data cleaning step was to read through each interview once more to confirm that the data were cleaned and anonymised thoroughly. Although a specific interview format was selected prior to transcribing, it was later identified that a different format would be better if NVivo was to be used; this was to use the auto coding feature of NVivo. Interviews were thus formatted consistently in Arial, font size 11. The 'Interviewer' and 'Participant' labels were formatted according to a specific style so that the auto coding feature could be used. Interviews were loaded individually into NVivo. The interviews were also collated, pages numbered and printed.

3.9 Ethics

The rights of the participants must be at the forefront of any decisions on the research design (Maxwell, 2008) so that moral and ethical considerations are taken into account – research must be performed without compromising the rights of any individual. While qualitative researchers typically criticise their counterpart quantitative researchers for representing human beings through numbers, there are many ethical issues that must be considered in the process of qualitative research (Seidman, 2006).

Ethical procedures represent principles that protect and respect the dignity and privacy of the participants in order to avoid any possibility of harm or discomfort and maintain confidentiality (Bryman, 2008; Qu & Dumay, 2011). The increased emphasis on human rights in society in general, and the protection of personal information deems it a requirement for researchers to

apply serious consideration to ethics (Kvale, 1996). For my study, the major areas that involve ethical considerations are:

- Obtaining ethical approval at the time of submission of the research proposal;
- Ensuring ethical conduct to protect the participants at all stages in the interview process;
- Ensuring integrity in all the decisions that I made related to conducting the interviews and presenting research findings; and
- Maintaining the trusting relationship that I developed with the participants by sustaining confidentiality and anonymity during the entire research process.

In the broad parameters in research ethics, according to Diener and Crandall (1978 in Bryman, 2008:135), there are four main areas where ethics is concerned:

- Whether there is harm to participants;
- Whether there is a lack of informed consent;
- Whether there is an invasion of privacy; and
- Whether deception is involved.

Ethical clearance was first sought by observing the various protocols of the University of Bath, in line with the University's Code of Good Practice in Research Integrity. I followed the broad principles provided by the British Educational Research Association (BERA) in relation to participants (BERA, 2011). These include ensuring the privacy of participants, voluntary informed consent, ensuring openness, and informing participants that they can exit the interview or the research process at any point in time.

Apart from obtaining formal ethical clearance from the University of Bath, I obtained permission to undertake interviews at the selected universities in the sample. The latter forms a part of the ethical procedures since I ensured that the rights of the participants who were interviewed were protected by the universities at which they worked. I approached gatekeepers such as registrars or deputy vice-chancellors to obtain permission to undertake research at the university. An email was sent to the gatekeeper, clearly outlining the nature of the study along with the requirements and ethical processes to be followed (see Appendix 2).

Each university's process for seeking permission was different, albeit with some similarities. The lack of consistency meant that I had to familiarise myself with several processes and manage a range of processes simultaneously. Coupled to this was the fact that there were different staff members involved in these processes, and I had to communicate regularly with them on the progress of my application for permission. I found that unless follow-ups were made, in many cases, feedback on my application was not achieved. The ensuring of gatekeeper approval is arguably the one area that illustrates my commitment to ethics. I did not interview any participant unless I obtained approval from someone in the organisation. Although this process took a long time and influenced my sample considerably, I did not want to compromise the ethical standards adopted in the study.

The two primary assurances regarding ethics and the interviewees are that they volunteered to participate in the research without any form of coercion and that they clearly understand the planned outcomes (Kvale, 1996). According to Qu and Dumay (2011:253), "A fundamental balance needs to be struck between interviewer and interviewee in terms of how much about the study's intent should be disclosed by the interviewer".

Once approval was obtained, I sent an invitation and informed consent form (that needed to be signed) to identified interview participants with specific details on the nature and purpose of the research, the potential benefits and risks, along with information on the interview process, including (Seidman, 2006; Saunders et al., 2009):

- What to expect;
- Request for a venue and time with which they feel comfortable;
- That I would ensure the confidentiality of all participants and universities by using pseudonyms;
- Distinguishing features of universities would not be presented in the write up;
- How the interview would be performed;
- The nature of the research;
- Reasons that they have been selected;
- Duration of the interview;
- Relevance for the university; and

- That they would be able to review the interview transcripts and withhold any information that they choose.

The place and timing of the interviews have an impact on research. If the interview occurred at their workplace, I was disrupting their workday so the interview could be prone to interruptions. Despite these risks, I considered a weekday interview more suitable as it is anticipated that people would not want to use their limited personal time over weekends. However, as indicated, I was guided by the participants themselves. If people were interviewed at their workplace, I emphasised that I would not share any information with their line managers or anyone in general.

I was careful to avoid inadvertently mentioning distinguishing features, such as size or type and location in the analysis that could reveal the identity of a university. In order to protect the participants, the manner in which the data is reported is fully anonymous; to accomplish full anonymity, some type of compromise on the way in which the data were reported had to be made so that no associations could be made. Although the anonymity may, to some degree, reduce the significance, applicability or relevance of the research outcomes, protecting the participants was my primary concern. Protecting the identity of participants and universities by using pseudonyms was extended by anonymising any piece of information that could identify participants, such as identities, locations, places, departments, names of colleagues and so on. In order to ensure that all data were kept securely and confidentially, I did not share the transcripts with anyone, but the participants and the transcripts remained in my possession alone and in a secure, private, protected location (Seidman, 2006).

It is crucial to ensure that participants voluntarily elect to participate in the study (Venkateswaran & Prabhu, 2010). No pressure was applied to gain access to universities or to coerce participants so that there was voluntary participation in the study. Participants were informed that they could withdraw from the research at any point in time and they were reminded of this fact at the beginning of the interview.

Seidman (2006) argues that the interviewing process could be seen as the researcher taking advantage of the interviewee by usurping the participant's words for their own personal gain. This tension cannot be fully resolved (Seidman, 2006) but there can be attempts at easing the tension that the researcher makes by cultivating an appropriate mood, managing the power

dynamics, and the manner in which they enter into the relationship with the interviewee (Qu & Dumay, 2011:253).

There are varying opinions on whether or not the interviewees should be given a chance to review the interview transcripts. While some indicate that this could benefit the participants (Page, Samson & Crockett, 1998), others claim that it could place participants in a position of discomfort when they view their spoken words on paper (Hagens, Dobrow & Chafe, 2009). Mero-Jaffe (2011) argues that there are both positive and negative sides to participants being sent the transcripts so that they can read through their written interview. On the one hand, it acts to spur the participant to elaborate further or elucidate some of the issues or thoughts they discussed. However, on the downside, seeing the transcript can cause the participant a degree of discomfort and embarrassment. The spoken interview generally takes on an organic form that does not necessarily conform to the formality of written text. Thus, when participants view their poor vocabulary, disjointed or incomplete sentences, and ideas that may not incorporate much structure, it could make them feel negativity that they initially did not encounter. Considering the above, I decided that it would be better not to send the participants the transcripts. Apart from the listed reasons, and the fact that the participants were all busy people, another consideration was that I would be placing them in an awkward position by expecting them to respond to another request apart from the initial interview.

3.10 Validity and Reliability

Maxwell (2008:4) explains that in terms of the validity of the research, one of the questions that needs to be asked is: “Why should we believe your results?” I address this question below.

One important consideration is that in research that is performed in one sector, such as SA universities, inconsistencies are minimised compared to research across sectors (Jarzabkowski, 2003). Also, the use of primary data as opposed to secondary data improves validity of a study (Molina-Azorin, 2012).

A key instrument that improved the validity of the interviews was the pilot study at one of the selected universities. The pilot informed the validity of the study by improving the understanding through refining the interview guide and my interpretation of what interviewees may expect. The pilot study was undertaken at a university where colleagues were familiar

with me. These colleagues were sufficiently comfortable to correct or make suggestions for improvement.

The question that frequently arises concerning interviews is how many are enough? There is no specification on the number of interviews because the number may differ based on the research questions and purpose (Roulston, 2014). However, Baker and Edwards (2012) suggest planning for a sample of approximately 30 interviews since such a sample size presents the benefit of being able to probe a contained number of interviewees without gathering excessive data in the midst of time constraints.

There is consensus, however, that sufficiency and saturation are useful indicators to assess whether the number of interviews is acceptable. Seidman (2006) explains that sufficiency is achieved when the selected participants are representative of the participants not selected (Maxwell, 2008). In this regard, the benefit of using purposeful sampling in my study relates to two areas outlined by Maxwell (2008). First, I selected universities spread across the various types of universities. Second, comparisons were made to understand the variations between the cases (universities) used and sub-categories of the cases (for example, the categories of staff).

It is important to consider the sample size, or the number of participants or universities to select when using purposive sampling (Yin, 2009). However, in qualitative research, the richness of the data tends to influence the sample size, and here, the concept of saturation is relevant. Data saturation is reached when new themes do not emerge in the data analysis; in other words, additional codification indicates that there is sufficient data and further coding is no longer practical (Fusch & Ness, 2015). Guest et al. (2006, in Fusch & Ness, 2015) indicate that in many qualitative studies, saturation tends to be reached when approximately 20 interviews are completed. Although there is still significant disagreement on the specific ‘ideal’ number, Warren (2002 in Bryman, 2008) argue that in qualitative interviews, between 20 and 30 interviews are sufficient.

Moreover, practical considerations such as excessiveness of data collection processes and time constraints likewise contribute to the decision on sample size (Baker & Edwards, 2012). Baker and Edwards (2012) emphasise that research is a practical endeavour that is shaped by pragmatic issues and processes, such as considering time constraints, the challenges of getting

access to participants, obtaining ethical clearances and transcribing interviews – practicalities that determine the feasibility of the research.

Other practical reliability considerations relate to the quality of the recording and transcription of interviews (Mero-Jaffe, 2011). All interview recordings were clear. Although there was background noise in three interviews, the recorder was placed in such a way to obtain a clear enough recording to avoid the risk of mistakes when transcribing. I employed a professional transcriber based on excellent references and initially tested the quality of transcription using one sample interview. Irrespective of these measures, mistakes can still occur. In order to correct any mistakes that may have occurred during transcription, I also listened to each interview and corrected any mistakes.

Triangulation is regularly used in research to remove bias and improve the validity of data and the study in general (Krefting, 2017). Checking whether interviewees at a higher and lower level in the organisation are aligned in terms of responses pertaining to the same issues or events can be used to ensure some type of triangulation and validity. Such checking guarded against the risk of "elite bias" (placing more emphasis on participants in high-status positions than those in lower status positions) (Miles & Huberman, 1994:294).

As much as there are mechanisms to ensure validity and reliability of the study, there are limitations. From my perspective, having worked in the enrolment area at one of the universities in SA, I had prior knowledge and professional interest in the topic being studied and this could have introduced biases in the study, leading to a loss of objectivity (Mercer, 2007). On the other hand, my experience, knowledge and position could also facilitate access to universities, and provide an understanding of the environment in which participants work. I had to be aware of not leading participants during the interviews so that they shared information that they were comfortable sharing. Furthermore, I needed to ensure that I did not make any judgements or have preconceived ideas of what they should and could share.

I ensured that sufficient time was allocated to the different stages of the research process. As a single researcher, I was aware of the resource implications and time constraints and how these may impact on the research process so that the process was not compromised in any way.

According to Cleary et al. (2014), the experience of the researcher can also contribute towards validity of the data through a well-defined, specific research area and carefully chosen and consistent set of interviewees. An inexperienced interviewer who chooses a sample that is fraught with inconsistencies and improper size could be misleading by producing a copious quantity of data that impedes detailed analysis. Validity of research also improves when there is representation of the bulk of interviewees when the data findings are presented (Cleary et al., 2014). I was conscious of the fact that I was inexperienced in performing formal research interviews and thus kept close contact with my supervisor in the pilot phase, before and after the interviews.

According to Maxwell (2008:35), other factors that improve validity of a study is intensive, long-term involvement that give rise to collecting "rich" data rather than developing hasty and incorrect theories. Data analysis involves making linkages by reflecting on the data against the theoretical standpoint underpinning the study (Bazeley & Jackson, 2013).

Credible data management procedures and techniques lend credibility to a study. I used primary data, and each audio recording and the transcribed interview was saved under the relevant folder with copies as described above. Once transcribed, I then saved the last and only version of the interview. I complied with the University of Bath's Research Data Policy. My primary copy was placed on the managed data storage of the university where I work. A raw copy of my data was retained by myself, and I saved a second copy on an encrypted hard drive. The transcriptions of the interviews were managed in the same way as the raw data. I scanned the pages of my research journal at the end of each week and saved these in a similar fashion.

I used the 3-2-1 rule in relation to a data backup strategy: at least three copies of my data, on at least two different media, with at least one kept in a different physical location. Data stored on the university research storage system is backed up by the university information and communication services. I accessed my backup at least once a month and opened files to check that they were still usable. NVivo back-ups were also done regularly. I used folder names to organise the data into interview and focus group data. Within these primary folders, I had a folder for each university within the sample, and within these, I had a folder for each interview or focus group. Each file name began with the date on which the data were collected in YYYYMMDD format.

I complied with the Data Protection Act as well as the University of Bath Research Data Policy. Only my supervisor had access to my data during the project. For transcribing, I used professional transcribers. A clause included in the contract with the transcriber indicating that the data file must be permanently deleted once the transcribing is completed.

This project is covered by the following policies:

- University of Bath Research Data Policy
- University of Bath IT Security Policy
- University of Bath Intellectual Property Policy
- My University of Bath studentship agreement

3.11 Conclusion

In this chapter, I described the methodology and methods used in the study and provided an explanation of a critical realist paradigm and qualitative research. Thereafter, the sampling was explained with an outline of the multi-level sampling at the organisation and individual levels. I provided an analysis of the participants in the study and an overview of the techniques used, namely, a pilot study, interviews and metaphor analysis. This was followed by a description of the data collection processes, which ends with a reflection on a few lessons learnt. I provided a summary of the data analysis strategy and tools to describe the process in totality, as well as the processes that were taken to ensure ethical considerations were carefully considered. Finally, I ended with an outline of the measures to ensure the validity and reliability of the study. Having outlined how the data were gathered, the next chapter presents the first part of the analysis of the findings.

4 Findings: Part 1 – Individual

4.1 Introduction

The narrative data of the strategic thinking practitioners was used as the basis for the data analysis. There are three levels of analysis, namely the individual, organisational and national levels. I present the analysis at each level in a separate chapter along with the various aggregate dimensions. The aggregate dimensions will contribute to achieving the research objectives by understanding the contextual factors and barriers that occur when performing strategic thinking in the development and implementation of enrolment strategy. In presenting the findings, I interweave the discussion of the relevant literature to enable a more enhanced understanding of the findings. Each aggregate dimension was obtained by combining various second-order themes. Similarly, first-order categories were aggregated to form the second-order themes, which were developed from the practitioner quotes. The first-order categories and practitioner quotes are presented in tables under each second-order theme. The discussions beneath each table draw upon quotes in the tables as well as other pertinent quotes.

In this first part of the data analysis, I discuss the analytical strategy and tools that were used. Thereafter, I move to the individual level, which comprises of two main aggregate dimensions – bounded rationality and cognitive dissonance.

4.2 Data Analysis Strategy and Tools

I used three studies to guide the data analysis given the commonality between the manner in which I collected data and used NVivo, namely, Dacin, Munir and Tracey (2010), Vuori and Huy (2016) and Ungureanu and Bertolotti (2018). All three studies are loosely based on a grounded theory-building approach and used a recursive process of continuously making associations between the data, the coding and the analysis. My study did not use a grounded theory approach, per se. I borrowed, adapted and extended the four-stage process for data analysis and the generation of themes from Dacin et al. (2010). In their study, the aim was to investigate the effect of a specific micro activity in the form of organisational rituals on the maintenance of society-level institutions, and they used the University of Cambridge as the case study. I also used and adapted their pattern of data structure in representing my data.

NVivo 2.0 software facilitates qualitative data analysis to manage the interview transcripts. Matching and codification techniques were used in order to identify specific themes in

participant responses. The aim of coding in qualitative research is to separate the data and then compare categories (Corbin & Strauss, 2008). The first stages of analysis involved inserting the interview transcripts in text format into NVivo. In phase two, I performed rudimentary coding on the basis of the 'in vivo' phrases and descriptions of the development and implementation of enrolment strategy by interviewees. I searched for parts in the individual transcripts that focused on the interviewees' thinking, their reflections, feelings and perceptions on enrolment strategy and the context they were facing. Such explanations comprised of descriptions and stories about enrolment drivers, emotions experienced, obstacles encountered, perceived purposes and measures of success, and other significant issues that interviewees perceived as meaningful. Nvivo allowed for the third phase – the patterning of the various codes that developed through the data – and in total, by the end of this phase, there were 1 984 coded parts.

In phase four of the data analysis, I started a collapsing process where the first-order categories were raised into higher-level nodes. This phase took the longest, but the high number of coded parts from phase one were significantly reduced. As an example, passages referring to the development and implementation of enrolment strategy as a technical exercise, a numbers game or data work, were grouped into "Narrow understanding of development and implementation of enrolment strategy". Further refinement of the higher-level nodes occurred to eventually produce the final first-order categories. In total, at the end of this phase, there were 56 first-order categories.

The fifth phase of the data analysis was the generation of second-order themes. Throughout these phases, I employed reflexive methods, which are an important aspect to support qualitative research. I used the reflexive process suggested by Bazeley and Jackson (2013:25) and recorded thoughts from the beginning of the research process. I therefore kept a research journal to capture issues that emerged during the data collection, which provided direction during data analysis. However, the assumptions of the researcher must be recognised as these assumptions cause researcher bias (Mauthner & Doucet, 2003). Although NVivo is a powerful tool and there is an assumption that the researcher is familiar with the use of this system, I reached a point where the analysis in NVivo plateaued. I then moved all 56 first-order categories to Excel.

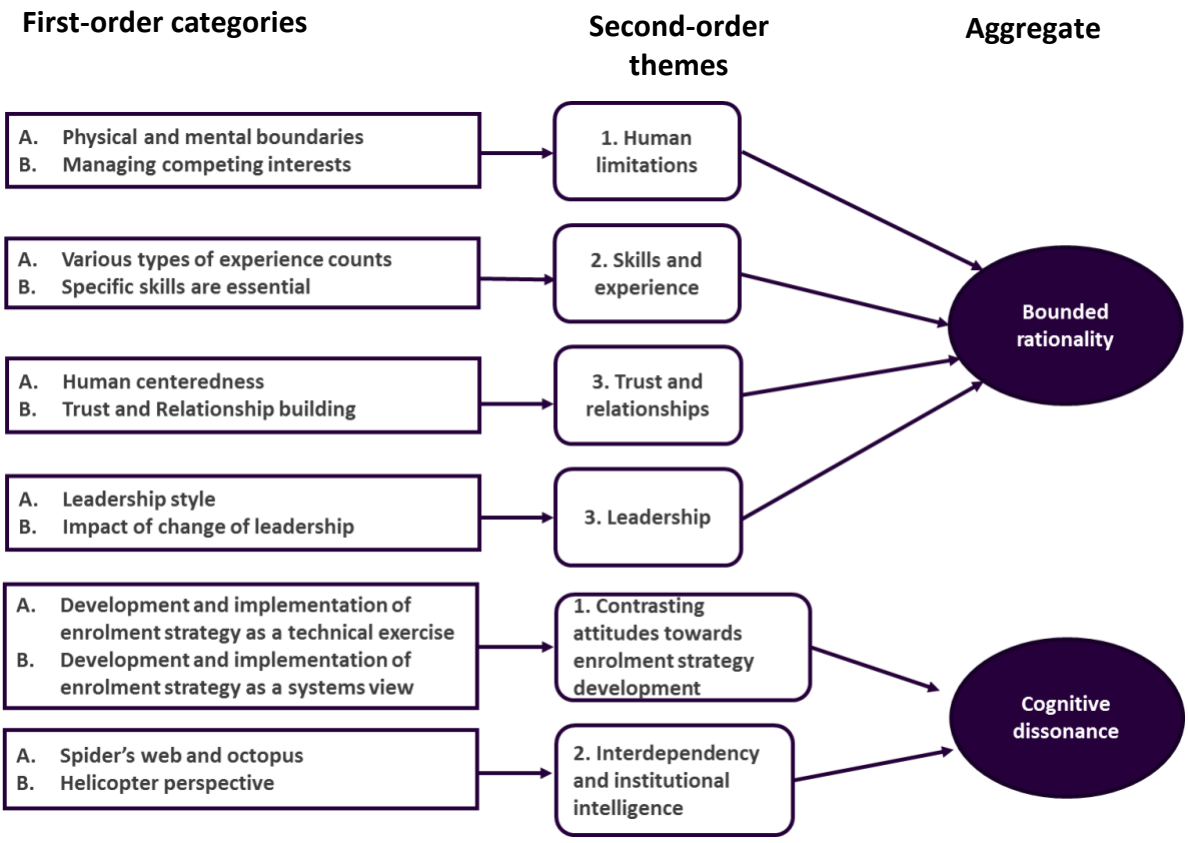
In the sixth phase, using Excel, I continued a process of identifying associations between the first-order categories to produce distinct second-order themes through dynamic, interactive pattern-seeking. As the process proceeded, emerging themes were scanned and organised into a hierarchical structure (Bazeley & Jackson, 2013). An example of this phase was identifying that there were two perspectives of enrolment strategy development and implementation – technical and systems – and collapsing these into the theme "attitudes in development and implementation of enrolment strategy". At the end of this phase, there were 15 second-order themes:

1. Human limitations
2. Skills and experience
3. Trust and relationships
4. Leadership
5. Contrasting attitudes and beliefs
6. Future and big picture orientation
7. Interdependency and institutional intelligence
8. Creating alignment between priorities at higher and lower levels
9. Evidence and ethical decision making
10. Shared mental model
11. Organisational structures
12. Organisational culture
13. Chronicity of national processes, schooling system and differentiation debates
14. Political instability
15. Complexity (individual, organisational and national levels)

In the seventh stage of data analysis, I arranged the second-order themes into key conceptual dimensions. Whereas Dacin et al. (2010) aggregated to theoretical dimensions, I refer to my aggregate dimensions as conceptual dimensions. I developed six aggregate conceptual dimensions at three distinct levels:

- Bounded rationality – Individual
- Cognitive dissonance – Individual
- Polemic Trade-offs – Organisational
- Organisational dynamics (structure and culture) – Organisation
- Chronicity – National
- Political instability – National

Figure 11 illustrates the final data structure and shows the first-order categories and second-order themes with the collapsing process. Further proof in the form of illustrative quotes from the practitioners that underlie the second-order themes and aggregate dimensions can be found in the tables in Section 4.3 to Section 6.4. Lastly, in the eighth stage, I performed an analytical framing that fuses specific theories with my analysis; it gave significance to my data and connected my findings to the extant literature.



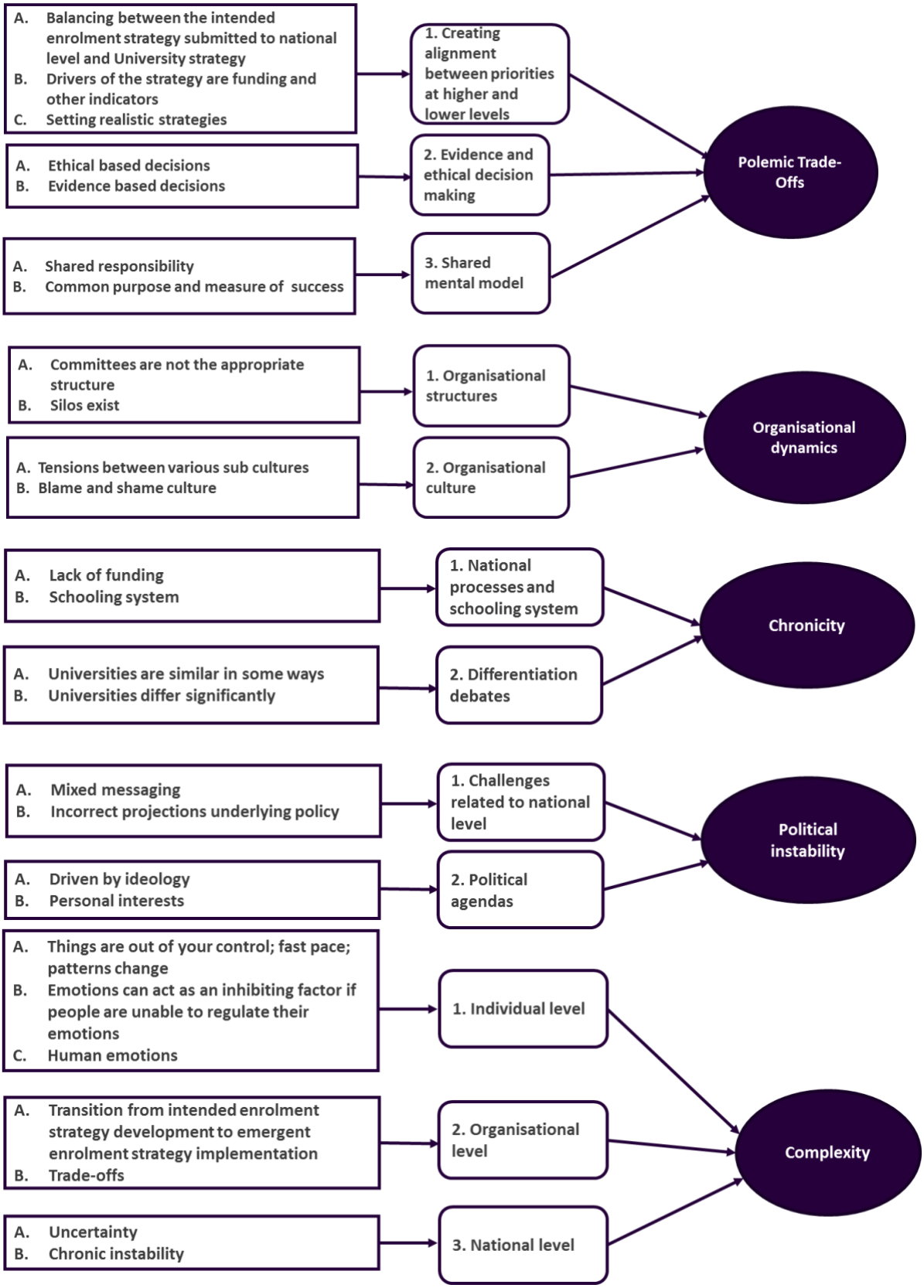


Figure 11: First-order categories, second-order themes for the aggregate conceptual dimension

Next, I present a detailed analysis of each of the aggregate dimensions by working through each second-order theme. In the process, I present the first-order categories and illustrative quotes in each second-order thematic section.

4.3 Bounded Rationality

Bounded rationality is "used to designate rational choice that takes into account the cognitive limitations of the decision-maker - limitations of both knowledge and computational capacity" (Simon, 1990:15). Cognitive limitations are related to behaviour and information processing ability (Bendor, 2015). These limitations are different from being foolish or illogical, but are limitations concerning achieving optimal clarity (Selten, 1999). Rather, it means that people are predisposed to regular and foreseeable mental inaccuracies (Kern & Chugh, 2009). More recently, the concept has been extended since people have limitations in terms of their awareness or bounded awareness (Bazerman & Sezer, 2016).

The second-order theme that I begin with is human limitations.

4.3.1 Human limitations

Table 13 shows the quotes and first-order categories that were used to develop the second-order theme of human limitations.

Table 13: Dimensions, Themes, Categories, and Data – Bounded rationality

Second-order theme	First-order categories	Illustrative quotes
Human limitations	Physical and mental boundaries	Unfortunately and we do make mistakes. (T4-PI)
		You learn by mistakes you make. And if you don't learn from those mistakes, you cannot do statistics. (T5-DIRQ)
		So to be responsible for all of that it is overwhelming and difficult sometimes. (T6-PI)
		And the intensity is felt by all of us who deal with information and knowledge management, making sense of things. And then you start to, often you find yourself being overwhelmed with information and with data and things to do. (C2-DM)
		…people get tired of reading e-mails ok so they don't read them. So we are working on a kind of little info graphic but with some colours to it so we are probably going to send that out. (T6-RI)

Second-order theme	First-order categories	Illustrative quotes
	Competing interests	What we struggle with is when you have parties that are very parochial in their thinking that they have a one-dimensional view of a very complex programme. You know, it's I see this and I see this alone and this is the only thing that matters to me… People are unable or they find it difficult to balance the interests of their constituency versus the interest of their institution. (U2-CIO)
		You know I think there is a funny way in which people think things differently at different levels when they hear it at a meeting of the MEC, they think of it at the institutional level. It's not necessarily something that takes on real form and meaning in their own domain. And I think they really had to be pushed to make that connection. It was sort of like up here (points to higher level) but they could not see the up here and the down there (points to lower level) of their activities. (C2-SDP)

Human physical and mental boundaries restrict an individual's cognition at the individual level (McKenzie et al., 2009). A striking example was described by Practitioner C2-SDAP on memory limitations:

> *Students could register, finish their coursework and at the point of getting a supervisor, getting your proposal, you know, following the five-step process, there were things just falling between the cracks. Supervisors couldn't remember who their students were.*

While this sounds like an acute example, and it is possible there was a high number of students with supervisors unable to remember their names, it does provide evidence of a cognitive limitation, namely, forgetfulness that directly affects the process of developing and implementing the enrolment strategy.

Another limitation that people have is limited processing capacity (Kahneman, 1973; Simon, 1990), and they tend to rely on conditioned reactions (McKenzie et al., 2009). A habitual response was referred to by Practitioner C2-DIRD: "*Very often there are people that just execute a task and so they are not critical in how they go about the task."* Practitioner T6-PI expressed feelings of being overwhelmed when trying to deal with large quantities of information, which was corroborated by Practitioner C2-DM:

> *And the intensity is felt by all of us who deal with information and knowledge management, making sense of things. And then you start to, often you find yourself being overwhelmed with information and with data and things to do.*

From a physical point of view, there are limitations in terms of what people can do in the time that they have. Moreover, the accelerated pace at which people work was mentioned as a problem, as indicated by Practitioner C2-PF2, who mentioned that 'electronic' processes do not give more free time but make everything faster. Benselin and Ragsdell (2016) found that irrespective of age, all people are affected by information overload.

Another challenge is that people make mistakes, although mistakes were perceived by practitioners in two different ways. On the one hand, planners considered mistakes in a negative frame: *"Unfortunately…we do make mistakes [T4-PI]"* but, conversely, mistakes were mentioned as a key learning mechanism because the iterative nature of the enrolment strategy's development and implementation cycles facilitates learning from one cycle to the next: *"You learn by mistakes you make [T5-DIRQ]".* While mistakes are generally perceived negatively in a traditional, planning and innovative mode, mistakes are considered to be a part of the learning process (Weinzimmer & Esken, 2017). Practitioner C2-DH further explained that there is a reliance on learning from mistakes:

> *I think enrolment plan is always a reiterative process where you learn from the past and you actually try and do better in the next round or the next cycle so that's how I would see that, so every past enrolment cycle actually contributed to improvements in the next cycle.*

It appears that both the planned and innovative mindsets exist in the development and implementation of enrolment strategy as mistakes are perceived in both negative and positive ways, creating a paradoxical pathway that can be traversed by those who can navigate their way through such terrain.

There is a lack of understanding of the complexity of enrolment strategy development and implementation [C2-DM], which affects the achievement of the intended enrolment strategy. Practitioner C2-SDAP explained:

> *…some Deans with varying levels of understanding the complexity of enrolment planning…were leaving it to a Vice Dean and then breaking up when they realise that, excuse me, I haven't achieved my target…*

According to Practitioner C2-RI, the root of the problem is an absence of connecting the enrolment strategy process to the sustainability of the university:

> *… people want things to happen now, straight away and they are not understanding that it is complex, that actually we are dependent on Government for our subsidy and if we get this wrong…it plays havoc with the bottom line, the financial sustainability of the university and ultimately things like salaries and infrastructure and buildings.*

Shivakumar (2014) argues that strategic decisions are characterised in two ways, namely having long-term implications and being difficult to reverse. Thus, Practitioner C2-RI's connection between the development and implementation of enrolment strategy and the bottom line of universities is significant in emphasising the highly strategic nature of enrolment strategy development and implementation.

Practitioner C1-DIRP suggested that people cannot understand how different data can be received from different parties for the same query:

> *…they sometimes ask admissions for enrolment data and then at other times, they ask management information for enrolment data and depending on what language they use, they could potentially get different data for the same question because they haven't really understood what they were asking for and then that causes confusion in the system…so I could be an academic asking for success rates and I'm actually asking for pass rates or throughput rates.*

According to Practitioner T6-PI, developing a shared language can assist in improving understanding. This means cultivating one source of data and getting people to understand terminology better.

There appear to be challenges specifically related to getting the head of departments' (HOD) understanding. Practitioner U2-CIO suggested the problem could be attributed to the fact that the HODs do not receive training during their induction and they have never had to think about the development and implementation of enrolment strategy prior to assuming the position. Practitioner C2-PF1 suggested that the lack of HOD training is problematic:

> *When I speak to HOD's they are very overwhelmed so I don't think they are aware and I don't think they are trained. It's on the job training. They don't know these are your avenues, this who you need to contact and even with the new dean.*

Although the lack of training is likely a significant contributor to the struggles that HODs face, there are other underlying disputes that academics have. According to Arnaboldi, Lapsley and Steccolini (2015), the pressures placed on academics by the introduction of various monitoring systems that are used to manage universities, such as audits, metrics and assessments, have added to the resentment amongst academics who feel that these managerial interventions are relegating their autonomy and connections.

Practitioner T3-PI referred to a practice that could address both the lack of training and underlying antagonism of academics. She indicated how their faculty used extensive consultations to engage with staff at the colleges and schools at their university. The consultations served as an opportunity to synthesise the fragmented parts – data, department strategies, university strategy and national imperatives – into an understanding of the cohesive whole. At the same time, one would expect that the time and effort invested in assisting the academics could begin to erode some of the conflict and pressures academics may feel. In a study by Becu, Neef, Schreinemachers and Sangkapitux (2008), involving farmers from two villages in northern Thailand being in conflict for scarce water resources, it was found that those farmers who attended a number of participatory sessions improved their level of understanding and began to explore the idea of collaborating with their counterparts in order to innovate shared procedures to share water. This example suggests that participatory consultations involving enrolment strategy stakeholders may be a useful way of improving outcomes, but more importantly, of easing the embedded tensions in the minds of academics.

Practitioner T7-DVC, who worked at the national level, explained how converting the intended enrolment strategy into reality was conceived of as a simple exercise:

> *…like a science in terms of doing a projections, your targets, meeting your targets and managing the enrolments to meet those targets.*

After working at the national level – specifically in the enrolment planning section – Practitioner C2-SDAP was of the opinion that the development and implementation of enrolment strategies and the transition from one to another were easy. It was thus *"a big shock"* when she started working at a university and realised that her perspective was utterly flawed. In other words, their interpretation was that shifting from enrolment strategy development to implementation was a formulaic, straightforward conversion process. Having that mindset at the national level means they would not have been able to identify with universities who had tangible, direct experience of the complexity. Direct experience may not necessarily be a requirement for understanding, but if the national level lacks appreciation for the difficulties faced by the universities it would be problematic as it could precede unwarranted expectations.

There appears to be, according to Practitioner C2-RI, limitations when managing competing interests:

> *I think one can actually say there are more complex decisions to make and then there are less complex but more sort of difficult in the sense that, you know it is becoming almost a decision that you take in the interest of the institution versus the individual.*

It seems as though some individuals are faced with a push-and-play effect between a rational choice around organisational benefits and a choice related to individual benefit. As Practitioner C2-RI claimed, logic points in one direction but the human factor points in another. As a registrar, the problem was not a lack of information, but that imposing rules without regard for the people felt bounded.

Another example of bounded rationality is when people think in one-dimensional ways according to their own needs and functions. For instance, Practitioner T6-RI gave the example of academics who mark examination scripts and might interpret an increase in student enrolment as a negative development because of the impact on workload. Practitioner U2-CIO explained that reconciling the various roles one may have at a university is difficult:

> *How do you as a person balance those competing interests? I think therein lies the challenge. That people are unable or they find it difficult to balance the interests of their constituency versus the interest of their institution.*

Practitioner C2-SDP suggested that the difficulty is as a result of the fact that people find it challenging to reconcile functioning at two different levels:

> *I don't know if it's just a human trait… I think it is more demanding more complex to take those other things into account. So it's a simpler set of issues and problems if you can put a fence around them.*

Again, the notion of unconsciously establishing a boundary to simplify complexity is evident.

Some studies acknowledge human limitations like information sensing ability, information processing and information storage capacity (De Wit et al., 1998). Moreover, De Wit et al., (1998) argue that people are limited by viewing the world in a certain way; in other words, through their mental models.

4.3.2 Skills and experience

The following theme is related to the skills and experience required in the development and implementation of enrolment strategy. Table 14 shows the quotes and first-order categories that were used to develop this second-order theme.

Table 14: Dimensions, Themes, Categories, and Data – Skills and experience

Second-order theme	First-order categories	Illustrative quotes
Skills and experience in the development and implementation of enrolment strategy	Various types of experience counts	There is one thing you cannot substitute intelligence for experience. (T5-DIRQ)
		Even just also in terms of regulations that you need to apply, admission criteria etc. How will that impact on your enrolments? To come from that academic background as well and not only academic in terms of, for example, you know what admission criteria not become too much perhaps too much for our students. (C2-RI)
		No, I am no longer complaining because as I said I understand why. (U2-DS)

Second-order theme	First-order categories	Illustrative quotes
		I think that having worked in certain capacities at a national level has helped me a lot. (C2-SDP)
	Specific skills are essential	It is absolutely essential that for this to work, for enrolment planning to work, you need people with a good work ethic because it does require detailed work. (T6-RI)
		I think one must have a general feel for numbers and stats. (T7-DVC)

As suggested by Practitioner T5-DIRQ, experience is considered to be the greatest asset in the development and implementation of enrolment strategy, and is more valuable than cognitive ability alone. Experience at the institutional level creates understanding and expertise in terms of the process (C2-RI) and understanding the purpose (U2-DS). Practitioner C2-SDAP suggested that: *"You have to look and listen, and be around for a while to know how the dynamics work".* Practitioner T6-RI spoke of instinctively knowing if something was going to work or not work based on years of observation. Additionally, experience protects one from being misinformed by others and allows one to understand the institution, the individual faculty's challenges, and based on the challenges, to negotiate accordingly (U2-DVC, U2-DS). Skilled human capital is a critical factor in the development and implementation of enrolment strategy (Bischoff, 2007; Black, 2010; Hossler & Kalsbeek, 2013). It is interesting to note that despite reference to skilled people in the literature, there is a gap in terms of clarifying who the right people are and what skill-sets and experience are required.

Prior experience of being involved in the development and implementation of enrolment strategy and experience with data are critical to enrolment strategy development and implementation because it entails iterative processes. A lack of experience can result in confusion and difficulties, so experience at an institution makes things easier. Participants explained how initially they found it difficult and onerous, but as they gained experience at the institution, they understood the context which provided good background knowledge on the data (Participant T7-DVC). The unfamiliarity of systems and processes can make one feel *"completely lost"* (Practitioner C2-PF1), and experience contributes to being able to detect problems and ask the right questions. Although experience is crucial, McKenzie et al. (2009:209) argue that there are shortcomings to "habitual mental responses" when confronted with tough decisions. Nevertheless, experience, according to Practitioner T6-DIRBI, allows for accelerated decision making:

> *…you can pay someone ten million rand, you are not going to bring someone who understands our data like they do and can talk, understands the business, understands the data and in a short time can inform a decision on the fly.*

Practitioners attested to the value of national experience (C2-SDP, C2-SDAP, T7-DVC and U2-CIO). Practitioner C2-DE explained that national experience places one in a position to be able to exert some power on national outcomes:

> *The fact of the matter is not all deans are interested in being involved in these national conversations. I have been doing that since I've started as a dean which means it adds a lot of responsibilities that you won't necessarily have but I think it's absolutely crucial. Because on one hand, you are aware of what's happening but on the other hand, you also are in a position to influence some of the thinking.*

National experience on its own, however, does not give adequate exposure to the complexities at the institutional level, as highlighted by Practitioner C2-SDAP:

> *So even though the DHET enrolment plan was a product of institutional submissions, it's only when I joined University T6 that I understood. I even felt somewhat ashamed of myself, that I hadn't understood the actual complexities of making an enrolment plan a reality because when you are at the DHET, you think of enrolment planning almost as though it is a perfect science. But when you're on the ground, you understand that the actual mechanics of registration, of applicants, of what the matric results did, what funding was available, what was the popular programme for the year, student choices, efficiencies within the system at the university.*

In light of the need for skills, experience and institutional knowledge, there are challenges that institutions experience in recruiting and retaining suitable professionals who work in the development and implementation of enrolment strategy. As Practitioner T6-DIRBI explained, their university is entirely reliant on these skills, so they pay high salaries to keep their staff and ensure they are not poached. He explained that:

> *...so you have this continual stress in the sense that if we lost, there are certain key people, if we lost any one of them it leaves a huge gap which we can't fill because we've had the people here.*

Some universities are comfortable trying to recruit from other universities while others prefer getting new ideas from outside. Recruiting from the outside has its own set of challenges because you might repeatedly advertise without finding people with the required skills (T6-DIRBI). University T6 started to create a pipeline by recruiting students from engineering, information systems, computer science and statistics, and training them while allowing the students to continue with their studies. Creating such innovative solutions provides benefits to both the university and the students who are able to gain valuable real-world job experience before they move into the world of work.

I extracted 74 skills that were mentioned through the interviews as being critical in the development and implementation of enrolment strategy and used these to form a word cloud, as shown in Figure 12. The top five skills were communication, critical thinking, being open-minded, assertive and having good contextual knowledge.

Figure 12: Skills mentioned for staff working in development and implementation of enrolment strategy

The multi-dimensional and multi-layered cloud of expertise forms a significant amalgamation of skills and abilities, difficult for one person to feature. However, it is important to consider

that these competencies are developmental (Goldman, Schlumpf & Scott, 2017) and the limitations in one individual can be compensated by another in teams of individuals (Dillard, 1993; Bui, Baruch, Chau & He, 2016). Finally, Practitioner C1-DIRP emphasised the need for continuous learning and development as a mechanism to address the combination of skills and experience that is needed:

> *…you often can't explain that just through numbers, you have to be on the ground, you have to be listening to students, listening to staff and constantly…its interacting with the different portfolios to get a sense of what is causing that trend and also benchmarking…you need to be in touch with your peers in the sector, with the regulatory bodies, you need to be in touch with international trends, to get a sense of this something unique to us in SA or is it something that everyone is experiencing. So you have to be immersed in all these different dimensions of a particular phenomenon or variable, to be able to respond to that unpredictability in ways that are rich…*

Work experiences have been shown to augment knowledge and learning in strategic thinking (Casey & Goldman, 2010). Moreover, experience has been connected to improving cognitive ability (Ployhart & Moliterno, 2011). Dragoni, Oh, Tesluk, Moore, VanKatwyk and Hazucha (2014) have shown the positive correlation between 'strategic thinking competency' and 'work experience', particularly international experience. My data suggests that a key skill-set required for those in the development and implementation of enrolment strategy is to be able to manage or handle a complex amalgamation of skills; in other words, handle complexity.

4.3.3 Trust and relationships

The next theme in this section is trust and relationships. Table 15 presents the quotes and first-order categories that were used to develop this second-order theme.

Table 15: Dimensions, Themes, Categories, and Data – Trust and relationships

Second-order theme	First-order category	Illustrative quotes
Trust and relationships	Human-centredness	It's actually seeing people and saying hello and taking that time and interest… That human touch goes a long way, much further than the stats you can show them. (C2-PF1)

Second-order theme	First-order category	Illustrative quotes
		You have to be sensitive on all the cultural differences that exist. (T4-DIRP)
		…because that is the way I was treated. I cannot treat you otherwise. It would be unfair of me to treat you otherwise for making an error that can be resolved. (T5-DIRQ)
	Trust and Relationship-building	That is the only way that we can operate a skeleton staff if trust is not there you work more and it takes a longer time to build such relationships. (T4-DIRP)
		I am always backed up, and my boss and my DVC academic, and when we present the numbers that's the safety net. (T6-PI)
		You know sometimes you can say things to a person over coffee that you cannot say in a meeting. (T1-DVC)
		The individual is not very trusting but it's thought of as being a problem if an individual has that power. (C2-DH)

Interpersonal issues also reveal the bounded nature of people as they relate to one another. For instance, Practitioner T1-DVC explained that *"…some people take things more personal while some, kind of, remain objective".* Practitioner T6-DIRBI emphasised *"people are people"* and keeping people happy is *"a very difficult thing".* Similarly, Practitioner T6-RI mentioned that a part of enrolment strategies' development and implementation is to *"…navigate personalities"*. Practitioner C2-DH elaborated on the interpersonal issues that affect the development and implementation of enrolment strategy:

> *I mean so-and-so doesn't like so-and-so…was tired whatever, they go to the meeting they have fight about something and it's just entirely to do with social and interpersonal dynamics…*

These quotes point to the fact that a people-centred approach may be required.

Practitioner C2-PF1 considered conscious effort towards a more human-centred approach to yield positive outcomes in the development and implementation of enrolment strategy; knowing you can trust someone and having a good working relationship are two aspects that enhance commitment. Although the social component of trust and relationships throughout the university is important, it is generally the planning office that is at the heart of the

responsibility. Practitioner C1-DIRP explained the importance of a planning office to demonstrate credibility and capability so that when things do not go as expected, the level of trust in the information, data and advice on how to manage the situation is accepted. She continued to explain that the trustworthiness of the planning office is developed over time. In a similar vein, Practitioner C1-DIRP indicated that the main elements of trustworthiness are*"…providing accurate data, timely updates and being seen as a value add in terms of decision support".*

Practitioners gave examples of how other aspects of enrolment strategy development and implementation, such as meeting a deadline, are impacted on by relationship-building. For instance, Practitioner T1-DVC explained:

> *It doesn't even help to like say you know you are late, that's not the way to go… you have to develop a working relationship with the people so that you can phone a person on his cell phone and say… I know you forgot, when can I expect your plan in the form of a joke and the person is not offended. So it's a lot of I think personal relationship work as well.*

Another benefit of relationship-building was highlighted by Practitioner C2-PF1, who felt that it acts as a proactive measure that helps people become more involved:

> *…even if you see them and don't talk about the deadline I think it's part of the relationship-building process, that it's more valued and that is why when I do send an email they know it's important and they respect it, sort of reciprocate that and…it's not detached…it's forced me to become a people person.*

There are different types of relationships, such as those between supervisors, subordinates and colleagues. Participant T6-PI indicated the value of her relationships with trusted colleagues whom she used as a *"soundboard"* to discuss and test her work. Relationships with superiors take more time and effort to develop (T4-DIRP), but from another perspective, Practitioner C2-DE felt that it was crucial for leaders, such as deputy vice-chancellors to trust those who report to them, such as faculty deans.

At times, focusing narrowly on the soundness of the technical aspects and neglecting to think over the political or people dimensions can be unfavourable (Delprino, 2013). According to Landells and Albrecht (2017), organisational politics has to do with the way in which people interact, but has generally had negative connotations that are linked to power, authority and exploitation. They provide a more unbiased view and show that there are both positive and negative perspectives. In other words, organisational politics or issues related to people and their relationships – how they interact, react and respond – is a reality in any organisation and must be taken into consideration. Thus, reflecting on and considering the human and relationship aspects is an essential component in strategic thinking in the development and implementation of enrolment strategy.

The importance of the soft skill of building trust in relationships has been described in a wide array of studies and disciplines. The general consensus in management research is that trust in people empowers them to be creative or inventive, and improves outcomes (Pfeffer, 1998; Maassen, Moen & Stensaker, 2016; Smith et al., 2016). It is important for leaders to express approval and appreciation to staff who are good at what they do as this engenders a feeling of trust (Smith et al., 2016). Trust is created through regular and constant communication in workplace relationships (Maassen et al., 2011). Once established, trust can stimulate a culture of more communication and probing norms (Bui & Baruch, 2010). Steptoe-Warren et al. (2011:241) argue that developing allegiance to the strategy of an organisation requires the ability to "encourage staff, create common values such as trust, honesty and creativity and create an environment which allows for development both of the individual and the organisation". To further illustrate the value of trust in a strategic thinking perspective, one of the elements Casey and Goldman (2010) mention is that it is important to be probed by a trusted colleague. Similarly, the value of trust between a supervisor and subordinate is simple – those employees who trust their leaders will be more committed, however, subordinates who feel that their leaders provide positive rhetoric but do not reflect it in their behaviour are likely to be ineffective (Collinson, 2012). Finally, Anderson and Sun (2017:80) sum it up well:

> Consideration is people related, and involves developing relationships and mutual trust with followers. It seeks to enhance the self-efficacy of followers in their ability to complete assignments and tasks effectively.

In the next section, I discuss the theme of leadership in relation to bounded rationality.

4.3.4 Leadership

Leadership is a factor that influences both the development and implementation of enrolment strategy, and Table 16 shows the quotes and first-order categories that were used to develop this theme. In my analysis, I found two first-order categories that aggregated to the second-order theme of leadership. These are the impact of a change of leadership and leadership style. In the discussion below, I consider leadership style as including agency, power and knowledge (Caldwell, 2011). Leaders are bound by their personal leadership style, but their approach can be adapted (Wheatley, 2006). Furthermore, a change of leader influences the development and implementation of enrolment strategy as both the leader and those in the organisation adapt to the change.

Table 16: Dimensions, Themes, Categories, and Data – Leadership

Second-order theme	First-order categories	Illustrative quotes
Leadership	Leadership style	Because it is not always my way that is always correct... I have to you know because if you don't do that you know the public will lose confidence. (U2-DVC)
		And he said to me, let me show you what error you have done, and he showed me, and he said, do not repeat it. And then I left. (T5-DIRQ)
		Because you know at that moment that individual becomes the institution because the individual is then the person who is giving the messaging… Yes, as a leader, it is my responsibility to flag certain things and to indicate the rationale. (C2-DE)
	Impact of change of leadership	The over-enrolment had everything to do with the fact that we got the new Rector who was a superstar. (T3-SDP)
		Much is required of HODs, not necessarily good preparation and then you have an HOD for three years and then you must start from scratch with a next HOD, which is so difficult. (C2-DE)
		I think it's normally when somebody is acting they tend to go into maintenance mode and not to venture into serious decisions like that which maybe they don't have much background on. So I think the acting executive deans rather played it safe. They opted to play safe. (U2-DM)

Leaders, such as Practitioner U2-DVC, expressed their sense of responsibility in the conventional or traditional conceptualisation of a leader as the head of an organisation. As highlighted by Practitioner T7-PI:

> *…your vision or where you are going is so determined on the person leading the process. If you are president and this is your focus, government strategy changes according to it. The same way if you are a director in a position and you directing it in a particular way and you're thinking outside the box, this is how the process unfolds…*

However, what became apparent was that there are different conceptualisations of leadership in the development and implementation of enrolment strategy. One stance takes leadership to be a way of being rather than a position in an organisation, whereas Practitioner C2-DH provided a metaphor that illustrated how there is a style of leadership that is particularly hierarchical:

> *One is of management decisions at the MEC level basically handed down, you know like Moses did on Mount Sinai…*

This metaphor suggests a clear chain of command and control, and any instructions received from top management are non-negotiable.

A leader's response to staff making mistakes sets the tone of their leadership style. A striking story on how a leader managed a mistake he made was shared by Practitioner T5-DIRQ:

> *I was just here in the 1970's I was just here about six months, I worked in the exams office, and the registrar called me in, and I was also doing the graduation lists of the students that needed to graduate. The registrar called me in and said to me, 'You are doing the Faculty of Education?' I said, 'Yes, Professor.' He said, 'Well, according to what I have checked after graduation, you have allowed the university to award three diplomas to students that should not have been awarded'. And the first thing that came to my mind was: here I am losing my job now. And he said to me, let me show you what error you have done, and he showed me, and he said, do not repeat it. And then I left.*

He explained how this early experience in his career and the manner in which it was handled was life-changing. The leader did not get upset, and he was not subjected to punitive measures. There was no blame or shame. As a result, the experience changed the way in which he worked. He became more careful, and he too reflected the compassion with which he was handled to those with whom he worked.

With leaders playing such an essential role at universities, a change of leadership is a period of transition and has an impact on the development and implementation of enrolment strategy. When a change occurs, contextual and processual learning of the new person must happen. Practitioner T3-SDP explained how their university experienced significant challenges in terms of turnover of leaders:

> *…you can't underestimate the effect of individual personalities and change in leadership in all the processes.*

The background of a leader also appeared to contribute, as Practitioner T4-DIRP explained:

> *And we have now a new deputy vice-chancellor for institutional planning, who is a mathematician…you can imagine the shift in the approach when you talk to that person versus the previous one which was an economist.*

Along with changes in leadership comes individual and personal motivations in the form of organisational politics, personal ambitions and protecting personal reputation. Top management are often at institutions for relatively short periods compared to staff lower in the organisational hierarchy, which presents problems, according to Practitioner T3-SDP:

> *If you have someone who makes institutional changing decisions who has only been here for six months and who is only going to be here for another three years, the way that they make those decisions are different from the guys who sit here for 11 years and have to live with the impact of the decision.*

While interviewing some practitioners, I encountered many worthy leaders and a few stood out in terms of their leadership style; especially Practitioner U2-DVC, whose humility and openness to listening was tangible:

> *I will be very worried to say everything that I put on the table people agree. Then I will say then there is something wrong with my management style. I want to hear people out. I want to put an issue on the table and say now this is what I think and I want somebody to come and improve on it to say it can be better if we do it this way.*

The success or failure of a leader is generally strongly correlated to whether they successfully performed strategic thinking (Graetz, 2005; Goldman, 2007; Zand, 2010; Pang & Pisapia, 2012; Sloan, 2013; Muriithi et al., 2018; Sahay, 2019). Leaders in the distinctive HE sector are similarly judged (Pisapia et al., 2017). There are several established and developing leadership styles that have been categorised in the literature. The extant literature appears to have a fetish with the topic of leadership, yet Anderson and Sun (2017) argue that although various leadership styles have been established, no universal style exists. Nevertheless, leadership style has been identified as a critical factor in the organisational context (Dulewicz & Higgs, 2005) and is fundamental to the quality of universities (Kok & McDonald, 2017). Leadership style that improves innovation and competency is a product of the head and the heart (Amanchukwu, Stanley & Ololube, 2015).

4.4 Cognitive Dissonance

Festinger (1957) described cognitive dissonance as a position of inconsistency in a number of cognitive elements, such as beliefs, knowledge, values, actions and attitudes. The perception of flawed opinions or perspectives within oneself can subvert actions by advocating unsatisfactory choices (Gawronski & Brannon, 2019). Cognitive dissonance is a precursor to behaviour aimed at reducing discomfort caused by the dissonance (Miller & Jehle, 2015). People experience cognitive dissonance in different ways while engaging in the development and implementation of enrolment strategy, and I discuss this theme next.

4.4.1 Contrasting attitudes and beliefs

Another second-order theme is understanding that there are two different attitudes related to the development and implementation of enrolment strategy. Table 17 shows the quotes with the first-order categories and second-order theme.

Table 17: Dimensions, Themes, Categories, and Data – Attitudes

Second-order theme	First-order categories	Illustrative quotes
Contrasting attitudes towards development and implementation of enrolment strategy	Development and implementation of enrolment strategy as a technical exercise	As a faculty we don't have a process in place of planned strategy around this because it's just not managed in that way. It's sort of seen as a tech exercise. (C2-DH)
		I remember those years you were dependent on the data from the ITS, the HEMIS (Higher Education Management Information System) data so even the kind of thinking the strategy between the plans for me, it was just a data exercise. (T7-DVC)
	Development and implementation of enrolment strategy as a systems view	I don't see enrolment planning as a kind of standalone set of numbers… When I say to people target enrolment isn't just about numbers, it's about the sustainability of the university (T6-RI)
		…it's less about the numbers and more about the impact and the scenarios…the institutional planning office did play a role in bringing that more to the surface you know where we actually challenged them to say - but did you think about it, did you consider that, so if this happened what are you going to do you know, so we were actually the ones triggering their thoughts... (C2-DIRD)

One attitude encountered is to consider the development and implementation of enrolment strategy as a technical exercise focused on data and numbers. Generally, this limitation is particularly imposed by those in faculties. Various participants referred to the fact that people view the development and implementation of enrolment strategy as a *"numbers game"* (U1-DIRP, U2-CIO, U2-DM, T7-DVC, T2-DIRP). In that sense, it is a challenge to get people *"to take the numbers seriously"* (T6-PI). This conveys a sense that for some, the numbers were separate and disconnected from the rest of the organisation. Practitioner U2-CIO explained that at his institution, "*in the past, enrolment was seen as a techno-sistic exercise"*.

Practitioner C2-DH, a faculty dean, was vocal about the fact that he considered the development and implementation of enrolment strategy as a technical exercise, and there were *"people in the faculty who are responsible for generating numbers"* and it is *"primarily a nitty-gritty data analysis exercise"*. He suggested this process should be executed *"…purely by technocrats"* and *"…you could also make significant use of algorithms…".* It is important to note that his view on the development and implementation of enrolment strategy in general,

and how he interpreted his role, was different from all other deans who were interviewed. Practitioner C2-DH suggested that:

> *So, there's a sense of, which is quite-- it's almost quite arbitrary. I just sort of you know-- so I'm so getting some numbers and then I simply say, well shouldn't that kind of go down a bit?*

The above nonchalant type of attitude reflects a random, deeply disconnected perspective that can be associated with the narrow, mechanistic view – what many authors have described occurs when there is an over-emphasis on strategic planning rather than strategic thinking (Buehler et al., 1994; Frese et al., 2015). It is clear, however, that some narrowly associate the development and implementation of enrolment strategy with numbers. Rosenberg and Schewe (1985) contend that success occurs only about 10% of the time when the environment is considered too mechanistically. According to Mintzberg (1994), it is therefore not surprising that strategic planning has failed organisations. Strategic planning stifles the ability to think and reflect in a creative way that synthesises information (Mintzberg, 1994). The danger of the technical, numbers-game attitude described by the practitioners is that the narrow view can become more dominant and sometimes be confused for strategic thinking in the development and implementation of enrolment strategy, thus jeopardising the act of strategic thinking (Mintzberg, 1994).

Some practitioners had more confidence in the fixed, predictive, planning mode, and others functioned predominantly in a flexible, adaptive mode (Mintzberg, 1978). Prediction is associated more with strategic planning, while influencing is associated with strategic thinking (Taylor et al., 2008). According to Pisapia et al. (2016), the former planning mode is related to causal thinking while the latter to effectual thinking. Effectual thinking means viewing the future as being shaped through social effort rather than external forces imposed on the organisation, and a synthesis of causal and effectual thinking is required for strategic thinking.

Another consequence of viewing the development and implementation of enrolment strategy as a technical exercise is that it is disconnected from people and processes, and therefore does not incorporate a systems perspective that is considered integral to strategic thinking (Liedtka, 1998; Bonn, 2005; Casey & Goldman, 2010). Practitioners voiced a broader, systems perspective of enrolment strategy development and implementation by referring to things like

impacts, interdependencies, consequences and interconnections. In fact, Practitioner C2-DH, who initially considered the development and implementation of enrolment strategy as being a technical, data exercise, changed his mind after reflecting on the process during the interview. By the end of the interview, he indicated that the development and implementation of enrolment strategy should not be seen in a technical way as it is *"about a much wider thing, you know space, marketing, and a lot of things you know, articulation…"*.

A systems perspective lends itself to systems thinking, which avoids a binary way of thinking of a single cause and effect. Rather, there are multiple causalities (Elsawah & Guillaume, 2016). One of the central ideas in systems thinking is managing the "whole" and opposes reductionism, which manages complexity through fragmentation (Flood, 1999). Once disjointed, the fragments of a whole cannot be fixed together to form the whole again (Senge, 1990; Midgley, 1996; Jackson, 2003; Caldwell, 2012).

Senge (1990:413) argues that systems thinking involves a "shift in awareness" from being separate from the system to being situated within the system. Accordingly, this shift is leveraged by four core components: mental models, shared vision, team learning, and personal mastery. Progress from a narrow, ego-centric approach to a systems-oriented approach manifests through personal mastery, which is described as a discipline where one patiently clarifies and focuses energy on deepening one's personal vision or purpose. It is important to note that Senge's (1990) approach can be located within a system dynamics paradigm (Flood, 1999), which has been criticised for neglecting to tackle the challenges presented by "agency" (Caldwell, 2012:40). Moreover, Senge's ideas have been critiqued for lacking ethical grounding, a weak theoretical foundation, and for neglecting consideration of issues of power and politics in organisations (Flood, 1999; Rowley & Gibbs, 2008). On the other hand, Senge's work is widely recognised as enabling the use of systems thinking through powerful insights (Flood, 1998) and instigating broad development of the core components of systems thinking mentioned above (Rowley & Gibbs, 2008). The concept of a shift in awareness corresponds to the metaphor of the balcony and the dance floor, and thus, according to my data, there is an important intersection between systems thinking and strategic thinking in the development and implementation of enrolment strategy.

Despite the fact that systems thinking is considered critical to strategic thinking, the narratives of systems thinking in the strategic thinking models lack comprehensive detail on how an

individual applies systems thinking pragmatically when engaging in strategic thinking (Maistry & Bui, 2018). Furthermore, there is a lack of understanding of how systems thinking can be incorporated into the development and implementation of enrolment strategy at public universities in SA (CHE, 2017). To my knowledge, my findings therefore present crucial empirical evidence to support the view that systems thinking is indeed a feature in strategic thinking in the development and implementation of enrolment strategy. Further work may be required to harness how systems thinking can be incorporated into the process of developing and implementing an enrolment strategy.

It was interesting that two practitioners, T6-PI and T4-PI, who were both located at different traditional universities but performed a similar institutional enrolment planning role, described themselves as a *"number cruncher"* or *"number puncher"* respectively. Simply put, these managers' identities at work were those of followers and not strategic thinkers. Practitioner T6-PI explained that she was *"…not really setting the strategy…"* because strategic decision making was top management's responsibility. She performed calculations and projections to give rise to enrolment numbers that translated their strategic intentions into numbers. Practitioner T4-PI made a similar distinction: *"He* (the boss) *has authority to make the decision".* Here, it was clear that there is a sense that generating the numbers does not constitute any form of strategic thinking, as it does not involve making any decisions. Coupled to this, a few participants expressed a detached attitude, such as Practitioner C2-PF2, who was responsible for the faculty planning process:

> *I am not a very strategic person. I don't worry about the end of next year. I am more a today person, do what needs to be done now. There are other critical thinkers systematic, systems orientated strategist, leave it to them.*

Similarly, Practitioner T6-PI indicated the same subordinate type of thinking: *"It's my job to do what I'm told to do (laughter) so you have to…and model the numbers accordingly".* Clearly, there are distinctions regarding what people 'should' be doing and it is fairly hierarchal. This hierarchal structure appears to have a binding quality to a mechanistic view.

These limited conceptions of staff members' identity are surprising as it portrays a sense of modesty and powerlessness. My findings present a fragment of insight into how middle managers can hold a subservient view of themselves in relation to strategic thinking in the

development and implementation of enrolment strategy. One aspect that is lacking in the literature relates to how the middle managers comprehend their individual roles in strategic thinking (Van Rensburg et al., 2014). The definitional ambiguities of strategic thinking (French, 2009) as being exclusive to top management emerge in enrolment strategies' development and implantation. The extant literature indicates a prevalence of this hierarchical interpretation of strategic thinking amongst middle managers who tend to limit themselves to being connectors between those below them and those above them (Van Rensburg et al., 2014). As hierarchical organisations, it is not surprising to encounter such views at universities. A hierarchical structure can reinforce the middle manager's view of being powerless in relation to strategic thinking or decision making (Anderson & Brown, 2010).

Being able to reconcile personal beliefs and the university strategy can likewise create an element of cognitive dissonance. Practitioner T6-PI, a planner who expressed her discomfort when the university she worked at decided to taper down undergraduate enrolments in the context of growing demand, stated:

> *…there are more matriculants that are eligible to come to university and we are not going to be taking, we are not going to be giving them the opportunity so that is also a personal struggle.*

The dissonance experienced is an indication of how "managerial cognition, corporate values, as well as individual values and beliefs affect strategic decision making" (Steptoe-Warren et al., 2011:246).

There were varying, and at times contrasting, responses regarding the purpose and measure of success of an enrolment strategy, even between participants at the same university, which suggests that a shared understanding of purpose and measures of success may be required. Figure 13 and Figure 14 illustrate word clouds that were created by summarising the various practitioner responses related to the success and purpose of enrolment strategy.

Figure 13: Word cloud on the measure of success in relation to enrolment strategy

The vast majority of practitioners indicated that success is about meeting the target. Funding, student success and strategic focus were other highlighted measures of success. Figure presents the word cloud developed to show the responses on the purpose of enrolment strategy.

Figure 14: Word cloud on the purpose of enrolment strategy

In terms of the purpose, funding was by far the predominant purpose mentioned by practitioners. Access and a combination of purposes also featured amongst a significant

number of practitioners. One would expect alignment between the purpose and measure of success because universities receive funding by achieving targets, and when they achieve the targets, they obtain funding.

The above two word clouds are interesting against the underlying assumption in the strategic thinking literature that the purpose of strategic thinking is competitive advantage (see Liedtka, 1998; Peteraf, 1998; Stacey, 2007; Haycock et al., 2012; Shivakumar, 2014; Calabrese & Costa, 2015; Halevy, 2016). Competitive advantage means improving organisational performance relative to competitors (Reed & DeFillippi, 1990). In relation to the development and implementation of enrolment strategy, the competitive landscape created by the national policies means that achieving the intended enrolment strategy and obtaining the associated funding represents a competitive advantage over those who do not meet the targets and are penalised. While the literature promotes competitive advantage as the purpose of strategic thinking, strategic thinking is simultaneously considered to be context-dependent (Liedtka, 1998), which raises a contradiction. The embedded assumption of competitive advantage may not be aligned to the purpose of organisations located within certain contexts, and therefore the purpose of strategic thinking needs to be questioned. A competitive culture could potentially stimulate antagonism between departments and block information sharing, thereby creating silos that cause fragmentation; what Jackson (2006:649) refers to as "sub-optimisation".

Strategy can be developed either as a means of improving market position (Porter, 1991) or resource capability (Peteraf, 1998), but generally all views of strategy are based on a model of economic growth and market share (Calabrese & Costa, 2015). Therefore, comparison against competitors is considered the success metric of strategic thinking (Abraham, 2005). The primary measure of success concerning enrolment strategy development is meeting the targets. The targets represent pre-determined enrolment goals that are connected to funding, so in that sense, there is alignment with the literature.

There are, however, various counter-movements to the mainstream thinking that competitive advantage based on economic growth should be used as measures of success in organisations, such as ethics (Singer, 1994), the wellbeing of employees (Weick & Sutcliffe, 2006; Huffington, 2014), or a human and environment-centred growth model (Fioramonti, 2017). In order to generate clarity in strategic thinking, an understanding of the measure of success is necessary. Universities are placed in a precarious position in terms of enrolment strategies

being linked to funding. However, that is not to say that alternative models of success based on more human-centred approaches should not be pursued.

Dissonance occurs when qualitative explanations are provided and they are unable to make a connection with a quantitative monitoring system that is generally used. According to Practitioner T7-DVC, there is a disjuncture between the explanations people provide during the development and implementation of enrolment strategy processes and the quantitative monitoring that occurs:

> *I think that when it comes to strategic management and monitoring when people start explaining they start giving all these small reasons which you can't pick up from numbers and dashboards. They might be valid, they might be good but I think that's why people are negative about all this managerialism and management and numbers because they've got all these explanations but somehow the two have to balance.*

It is probable that this gap between the qualitative explanations and quantitative monitoring results in a sense of helplessness and frustration as explanations are not necessarily understood in a context in which quantitative reasoning is prioritised. The bias towards quantitative information was confirmed by Practitioner C1-DIRP:

> *…the sort of very rational and quantitative ways of working have to be complemented with more qualitative and more subjective and more personal narratives, to enrich the data so that you can work with data but also see it in a more three dimensional way that the data is also explained through the narratives of people that are on the ground that are experiencing the university.*

It is likely that practitioners are unable to connect their narrative in some meaningful way to the numbers. It points to the need for a conduit who can interpret their narrative and ease the conflicts that the development and implementation of enrolment strategy could bring to bear on both institutions and individuals. Barton, Emery, Flood, Selsky and Wolstenholme (2004) argue that the use of quantitative-based data is challenging as it means moving people towards visualisation and quantification which might be outside their existing comfort zones.

4.4.2 Future and big picture orientation

The next second-order theme is future and big picture orientation. Table 18 shows the quotes with the first-order category for this second-order theme.

Table 18: Dimensions, Themes, Categories, and Data – Future and big picture orientation

Second-order theme	First-order category	Illustrative quotes
Future and big picture orientation	Orientation towards the future	…it is not about predicting and what is going to happen. It is about changing and shaping and deciding what is going to happen. (T2-SDP)
		…we've had a whole process where we also like drew a line through everything we've done and we started again looking at the HE context now and trying to predict a bit of the future…how might we have to do things differently. (C1-DVC)
		You must know where you are going. That is what I meant with the vision. (T7-PI)
	Orientation towards the big picture	I do think she was often a voice of reason and she was also listened to, maybe not immediately but often having said something the fourth time, people started to hear her. So that made a difference that there was somebody who was able to see the big picture. That I think was often lacking - the big picture thinking and the voice of reason to say let's look at the big picture…let's not just look at a specific target and the drive that target without understanding the picture. (C2-DE)
		We're still in the mode of filling seats. If you haven't got a big picture of where the university is going, and it would be an emphasis in your PQM (programme qualification mix) and what is it that you'd like to promote, you would not know who to attract. (C2-DM)
		And so people don't always see the big picture. And so they, that's why you have people, I know of one university where enrolment – people who write the enrolment plan didn't necessarily understand what it had to do with the finance but it was usually just a historical trend. (C2-SDAP)

Dissonance is prevalent when people encounter their positionality in relation to others' stance towards the future. One of the problems when performing strategic thinking in the development and implementation of enrolment strategy is people focusing on solving prevailing difficulties rather than applying future-oriented thinking (Markides, 2012). Hamel and Prahlad (1994) confirm that strategic thinking or strategic intent is future-focused because it conveys a distinct sense of direction. Whereas Practitioner T2-SDP considered that there is an opportunity to

influence the future, Practitioner C1-DVC concentrated on trying to predict the future. Influencing the future means attempting to develop some element of power to change the future (Pisapia et al., 2016). Moreover, shifting people from the predictive mode to the influencing mode is difficult, as explained by Practitioner T2-SDP. She has worked with a person who is fixed on predictions and has been doing so for 30 years:

> *…so one of the key things we are doing is…to get this guy to think differently…we are setting targets in a strategic way and we will implement initiatives to reach those targets… He sees the world as something that happens, and we do not have any influence on it. It is very difficult to think strategically if that is the way you see the world.*

Irrespective of the positionality in relation to the future, there is still a common understanding that an orientation towards the future is necessary in the development and implementation of enrolment strategy. Practitioner T5-DIRP, who had an adaptable view, suggested that flexibility in thinking is achieved through an iterative toggling between the historical trends of the past and the potential ideas of the future:

> *… I think it's not getting stuck in the past, not get stuck in your idea of the future because often our idea of what the future might hold is very wrong.*

She continued to explain how the university she works at uses a structured step to pragmatically guide the development and implementation of enrolment strategy by considering three scenarios termed a low road, a middle road and a high road; where low is a limited growth scenario, the middle road or medium growth scenario and the high road with high growth. Top management indicates which scenario they prefer to be developed further. Again, this description highlights the iterative nature of the development and implementation of enrolment strategy. Moreover, what is evident is the need for a pragmatic step to initiate the process.

Along with an orientation towards the future, another component that is needed in the development and implementation of enrolment strategy is an orientation towards the big picture. The big picture is important because it sets *"strategic direction"* (C2-DIRD). This facilitates *"people understanding what the objectives are"* (C2-DH) so that they can make decisions in line with those strategic objectives. It is interesting to note that all practitioners'

quotes in Table 18 are from the same university – C2. This university had the majority of practitioners in the sample (42%), and it was evident that the concept of the big picture is a predominant feature in their enrolment strategy development and implementation phase. Practitioner C2-DE highlighted the fact that one of the colleagues in the planning office was committed to shifting people from the narrow view to the big picture:

> *…the big picture thinking and the voice of reason to say let's look at the big picture, let's look at what is happening in the bigger picture, let's not just look at a specific target and the drive that target without understanding the picture.*

Practitioner C2-SDP's role at the university was presumably related to broadening people's (especially faculty deans) understanding of the institution, so it is possible that the culture of trying to see the big picture originated from her cues. This appears plausible because, in the interview, Practitioner C2-SDP indicated she would regularly alert the executives, including the deans, of certain key institutional moments like the national level's 2020 to 2025 planning cycles:

> *I had laid the groundwork for that by talking about it frequently at meetings of the ELG (Executive Leadership Group) so people were aware of that. I had drawn everybody's attention to the fact that this was a critical strategic moment where decisions had to be made that would have quite long-term consequences for the future.*

Nevertheless, at times, despite drawing people's awareness to strategic moments, some still did not make the connection. One of the reasons for parochial awareness was offered by Practitioner U2-CIO: *"The faculties think and work within their bubble; their faculty. Which is already a monster by itself…".* This raises the idea of a dissonance between the faculty and institutional perspectives. Faculties that focus too narrowly on their own development and implementation of an enrolment strategy without considering the institutional picture could be problematic because *"the picture was not looked necessarily at holistically"* (C2-DE).

A narrow view is likewise created when becoming distracted by details. However, Practitioner C2-DE cautioned that while the big picture is essential in the development and implementation of enrolment strategy, being able to correspondingly manage the detail is likewise considered

an asset: "*You can't have only the big picture thinking. You must also give attention to the details. That I would think is a strength".* Practitioner C2-RI corroborated this view because the detailed perspective serves the purpose of pinpointing "*where...there might be risks and wasted opportunities".* The orientation to the big picture in the development and implementation of enrolment strategy can be based on historical trends of the past and potential ideas of the future that are held simultaneously. Practitioner C2-DE provided a metaphor that reconciles these two perspectives:

> *You must be able to, it was nicely put, be on the` dance floor` and every now and then be on the balcony. So you must be on the balcony and on the dance floor all the time. And on the balcony and look at the dance floor to get a bigger sense.*

Here, she suggested the practice of reconciling the big picture and the detailed view through a simultaneous oneness and difference, which involves being able to concurrently think in a way that allows for convergence to the detail and a divergent sense of being without the detail. This endorses the idea that strategic thinking involves a combination of both convergent and divergent thinking (Bonn, 2005) and is accomplished through detaching oneself from the detail to rise to another level and change one's point of view, or vice versa. Being on the dance floor is being situated in the detail of everyday action where actions or a sense of doing creates a sense of accomplishment. However, such action can be so engaging that one can get distracted from the bigger picture. According to dual-process theory, there are two systems of thinking – one that is quick and largely unconscious, and another that requires a conscious effort that tends to occur slowly (Evans, 2003). The balcony view entails reflective thinking and thus falls into the latter, while the detailed view is habitual thinking that falls within the former.

The big picture means that a person on the dance floor must at some point be able to raise themselves up, detach from the detail, and become aware of a higher level compared to the one in which they are situated (C2 DIRD); it suggests a vertical shift of awareness. This point is akin to the metaphor used to illustrate that people need to be able to develop a 'balcony' perspective, but is also a reminder that the detail, action-oriented approach, without being able to rise up, is a limitation. So, for example, a person in a department would need to at least be able to 'see' the faculty picture. Similarly, a person in the faculty would need to at least be able to see the institutional picture, and a person within the institution would require a national perspective.

The lack of big picture thinking was mentioned by Practitioner C2-DIRD, who felt stressed that there is a considerable need to develop this thinking, particularly at the lower levels, like faculty administration who are limited in their exposure:

> *…often there are people that just execute a task and so they are not critical in how they go about the task…one would have expected that they would ask questions, build scenarios, you know understand implications…think out of the box.*

The sentiment was echoed by Practitioner T6-RI, who indicated that the levels below top management *"are not looking at the bigger picture"*. Thus, management had the *"luxury"* of seeing the bigger picture and felt that it was management's responsibility to *"share that bigger picture with people".* This is an important finding because a misrepresentation that can appear in the development and implementation of enrolment strategy is the idea that strategic thinking is limited to top management. Many researchers restrict their investigation of strategic thinking to the top levels of the organisation (Zabriskie & Huellmantel, 1991), while others indicate that it is important that "managers at multiple organizational levels" are skilled at strategic thinking (Casey & Goldman, 2010:167). In that regard, the literature mentions the considerable impact middle managers have on the processes of strategic thinking (Rouleau & Balogun, 2011) and recognises the importance for middle managers as well (Thakur & Calingo, 1992; Van Rensburg et al., 2014; Roper & Hodari, 2015; Jarzabkowski et al., 2016b). My finding connects to this literature by suggesting that top management has a responsibility to empower the lower levels by sharing the big picture.

Dissonance is created when the whole picture is not considered between the institutional and faculty levels. Practitioner T6-RI considered the lack of big picture thinking even more difficult when people in decision-making positions *"don't see the full picture"* because they are *"not necessarily listening well".* Practitioner C2-RI extended this view by describing it as *"very dangerous if someone needs to manage it and they don't understand the full thing".* According to Practitioner T7-PI, it was important for people at a certain level at a university (director and above) to make the effort to think *"outside the box"* and *"know where you are going".* Practitioner U2-DVC felt it was further necessary for faculty staff to extend their thinking beyond their faculty: *"Don't look into your own faculty alone"*.

Thus, in this theme, the thread of being oriented to the future and big picture emerges as being essential in developing and implementing enrolment strategies. The way people see the world influences their view of the development and implementation of enrolment strategy as either prophesy or power. There are two opposite perspectives that those who are involved in the development and implementation of enrolment strategy require. The challenge is being able to change from one perspective to the other because it requires two different thinking processes – divergent and convergent – that give rise to not only the whole picture but the detailed actions of everyday strategising.

4.4.3 Interdependency and institutional intelligence

A key insight from participants is the metaphors that were elicited as a mechanism to triangulate the themes. The metaphors below illustrate the second-order theme of interdependency and institutional intelligence in the development and implementation of enrolment strategy. In this section, I present the metaphors and include a picture that was drawn by one of the practitioners, Practitioner T6-RI, who offered both an image that was drawn and a metaphor of a puzzle.

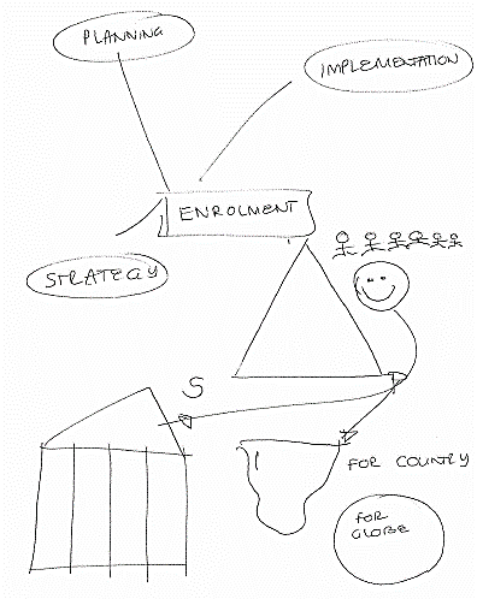


Figure 15: Image drawn by Participant C

Through her drawing, Practitioner T6-RI shows a central triangle. At the bottom, she depicted the university, national and global levels. On the left side, she depicted the development and implementation of enrolment strategy, and on the right side, she illustrated staff and students.

Thus, she presents four distinct levels within development and implementation of enrolment strategy – the individual, the organisation, national and global. Her picture illustrates the interconnectedness of the enrolment strategy's development and implementation. It is noteworthy that people are placed as a key feature of the picture as a focal point. Moreover, the fact that the person has a big smile is an indication of a harmonious system that is interconnected and balanced.

Furthermore, through her metaphor of the puzzle, she reinforces the importance of people understanding the end goal of enrolment strategy implementation by people making connections about the relationships they have with one another, suggesting that the organisation is like a puzzle that requires individuals working together in a well-balanced, logical, ordered manner. A puzzle is an inanimate object and suggests a normative view that is static and fixed in terms of how the organisation 'should' work:

> *I suppose what I am trying to share with you is this is our* ***end goal*** *and if you don't get people buying into this, you are not going to get that* ***alignment*** *and that* ***working together*** *as part of the puzzle…*

There are various understandings of strategic thinking as a reflective process that focuses on the organisation's future that must be conceived as an organisational cognitive process. It is performed and supported by a group through interaction and interdependence.

In contrast, Practitioner C2-PF1 used the analogy of a spider's web to illustrate the idea of interdependency. Although the web itself is not animate, it is a mechanism for a spider to move around when it catches its prey:

> *I am not sure why because there are a lot of networks, links and I don't really think it's specifically to catch prey but you know it's all* ***interlinked*** *and it* ***functions only when it's interlinked****. And where there is that* ***flow*** *and there's* ***no breakage*** *in the flow…it's a lot of different parts, not moving parts necessarily but that they have to be at some point in time* ***be linked to the whole picture*** *even if it's faculties or departments…* ***To meet its function it has to be whole****. So enrolment planning* ***can't be siloed*** *and it can't be just experts in numbers and* ***it's a whole integration****.*

The spider web metaphor emphasises systems thinking in strategic thinking through the interconnections between the various people and processes to see an integrated view or whole organisation. It is interesting to note the emphasis is not on catching people but rather on 'flow' and 'no breakage', suggesting that there is some activity in the web that creates a flow. The flow could refer to a flow of information or actions and suggests a more dynamic situation than the above puzzle metaphor.

Next, Practitioner T3-PI provided an overall metaphor of an octopus, but embedded a second metaphor in a description:

> *Like an octopus… It has so many impacts and so many consequences and, but it is something that is so* ***central to the operations of an institution****… It's almost like the* ***life-blood of the university****… I just see it having such far-reaching effects, you know, it just has such far-reaching effects…*

Practitioner T3-PI's metaphor of a living creature suggests a living system that is fluid. The limbs of the octopus are indicative of the extensive interdependencies and impacts of the development and implementation of enrolment strategy. The octopus is a creature that is flexible, responds quickly and stretches vast distances. In describing the development and implementation of enrolment strategy as the life-blood of the university, she suggests that the university would 'die' without the development and implementation of enrolment strategy. Using a life and death scenario illustrates that decisions related to the enrolment strategy's development and implementation are serious and essential, which corresponds to characteristics of strategic decisions (Nuntamanop et al., 2013; Shivakumar, 2014).

Practitioner T5-DIRQ put forward the metaphor of a helicopter in relation to his position and the development and implementation of enrolment strategy:

> *…it would be like I am in the helicopter, and I am sort of* ***scanning the environment*** *to see if the environment fits into certain* ***pre-determined set of objectives****…* ***I am the pilot*** *and I have pre-determined objectives. So, if in the Faculty of Arts they have done their selection but it is too little to reach their objective, then you go in there and once* ***you land*** *you go and have discussion with the stakeholders on why this did not happen and what are the issues and what are the challenges they are facing…* ***It is like you are counting rhinos from the sky****, you know.*

The helicopter view is an established representation in the strategic thinking literature (see, for example, Mintzberg, 1994; Johnson et al., 2007; Malan, 2010; Goldman, 2012). According to Nuntamanop et al. (2013), a helicopter perspective is a divergent, strategic thinking perspective while an 'on the ground' perspective conveys more of a convergent, operational type of thinking. This is akin to the balcony and the dance floor metaphor that was described earlier. Practitioner T5-DIRQ's metaphor thus very clearly indicates both types of awareness or views – divergent ('helicopter') and convergent ('you land'). Whereas the majority of studies suggest that strategic thinking comprises the helicopter view rather than the 'on the ground' view, my findings suggest that both views are significant in the development and implementation of enrolment strategy. This finding contradicts the views of Shivakumar (2014), however, this is as a result of the fact that his focus was the development and not implementation of strategy. In strategy implementation, there is a complex mix of different types of thinking, including both divergent and convergent thinking.

Practitioner T5-DIRQ confirmed that shifting awareness from a divergent, systems perspective to a convergent perspective and vice versa are both required. There is an impression in some literature that the latter view can be solved through a rational approach, but if people are involved, it implies ethical boundaries and complexity (Flood, 1999). Practitioner T5-DIRQ also embedded other aspects of the metaphor into the original metaphor. First, he described himself as the pilot, meaning that he has some control over what he does but that there are pre-determined objectives, namely the enrolment strategy. Here, he described the development and implementation of enrolment strategy from a helicopter perspective and he likened it to counting rhinos from the sky. In other words, what he says suggests he has to try and identify problems or risks from 'above' – the institutional level – but in order to rectify the problem, he has to ground himself at the faculty level and have a conversation with faculty staff about the issues that are affecting them. This is another powerful metaphor that draws attention to the differing perspectives at a university and how critical it is for the institutional representative to gain an understanding, at least from time to time, of what is occurring at the lower, faculty level.

My analysis suggests there is a complex mix of foci that constitutes various attitudes or perspectives with two main elements: the development and implementation of enrolment strategy as a technical exercise, and the development and implementation of enrolment strategy as a systems view. Collectively, these elements underpin the attitudes and shape the behaviours

of participants during their roles as strategic thinkers in the development and implementation of enrolment strategy. The metaphors have corroborated many findings. First, people are intrinsic and central to developing and implementing enrolment strategies. Next, appreciating the interrelatedness is essential, and this can be done by understanding the impacts, consequences and interdependencies. Finally, both convergent and divergent thinking are needed in strategic thinking. The importance of developing and implementing an enrolment strategy has been reiterated and emphasised.

According to Practitioner C2-PF1, understanding and shared responsibility are key elements of the development and implementation of enrolment strategy. Similarly, Practitioner T1-DVC suggested that the development and implementation of enrolment strategy are *"intertwined"* and there is no *"beginning and an end"*. She referred to it as *"an integrated planning process"* because you need information from various people across the university. Practitioner C2-SDP suggested that one of the challenges in creating understanding is to get people to become more aware of the importance of enrolment strategy development and implementation:

> *...to get people to be more conscious of what they were doing in enrolment planning, to make them aware of the importance of it and to acquaint them with tools and instruments we were using of which they were a little afraid.*

Practitioner C2-SDAP suggested that making people aware of the financial implications is a way to make people understand the importance of the development and implementation of enrolment strategy:

> *...you actually needed to get people onto the same page for them to understand that under enrolling could mean x for the university over-enrolling could mean that we wouldn't receive subsidy and that actually it was going to be at the university's cost to produce a student because the fees would never be enough.*

Practitioner U2-DVC explained that at their university, extensive collaboration, teamwork, consultation and communication is involved so that people feel a part of a community rather than being isolated:

> *I think that the collaboration that we have as a team, teamwork is our strength because you know it is not one person sitting somewhere and crunching all the*

> *numbers. We come together, we negotiate and come to a conclusion. I think that is our strength in terms of enrolment planning…what we do here, we talk. In that way, people's fears are allayed and they do not feel alone"*

According to Practitioner T7-PI, ensuring understanding is critical as people have different perspectives based on their personal backgrounds, way of thinking and their educational backgrounds:

> *…everything is different, different experiences, different make up on when you were a child so all of that makes you, you and it makes me, me. So when I go into a position and you go into the same position the way we are going to see that vision for that thing, it will be totally different.*

Taking this into consideration, it is important to create a forum for people to communicate and understand each other's perspectives, harnessing institutional intelligence. Practitioner C2-SDP gave the example of how the institutional enrolment planner at their university had brought people together in a common forum to talk through issues for people to understand the different perspectives, be able to connect admissions with what happens in registrations and how all of that connects to the enrolment plan. Although Practitioner C2-DE acknowledged the importance of communication, she emphasised that communicating once is not sufficient:

> *It's just repeatedly explaining. That's what it boils down to. Because explaining it once clearly does not do it. So each time when you're confronted with it you have to explain it again. Cumbersome, tiring but that's the way one has to do it.*

Another benefit of communication is that the interpretation changes as it is repeated from one person to the next so that by the time it *"gets to three, four people after me, it might be something different and that's the reality of life"* (C2-DIRD).

4.5 Complexity: Uncertainty and Emotions

The uncertainty that underpins the development and implementation of enrolment strategy comprises of several elements. Table 19 shows the quotes and first-order categories that were used to develop the second-order theme of uncertainty.

Table 19: Dimensions, Themes, Categories, and Data – Uncertainty

Second-order theme	First-order categories	Illustrative quotes
Uncertainty	Things are out of your control; fast pace; patterns change	I mean enrolment projections is one of your most difficult because the fees must fall was not anticipated, I mean it was not expected so there are unexpected factors that you never can plan for. (T7-DVC)
		So there is a lot of things that is not in our hands, that we don't have control over yet we are being committed to numbers. (C2-PF1)
		So it's unpredictable, its complex, it's impacted like by many, many external factors. You can never quite predict it with complete accuracy, it's beyond your control yet you are expected to ready the university for any eventualities... So he can use the best he can using the tools available to him to do the forecasting and do the modelling to arrive at quite sensible projections from an enrolment projections but he is not a wizard. (C1-DIRP)
		So to give you a sense I can do everything I am supposed to do but it can still go wrong and that is the reality of enrolment planning and enrolment management is that you can do the best possible job on paper and with the best possible systems but you cannot accurately define human behaviour you know and that's it. So to give you an example, you may know from your own experience is that we find that matriculants go through phases and stages of one year engineering is the craze, the next year it's actuarial science, the next year it's speech and hearing so you kind of have to have your eye on the ball to kind of see quite early on what the trend is you know. (T6-RI)
	Emotions can act as an inhibiting factor in development and implementation of enrolment strategy if people are unable to regulate their emotions	I think that actually requires a more flexible, slightly more relaxed approach because otherwise people get into a panic and they just do anything possible to meet the target and then find that they have overshot it because there are a whole lot of other students that are coming in. so I don't know if that is an organizational dynamic. (C2-SDP)
		The DVC is obviously prone to panicking which creates a lot of stress for the people... it's one of these things - a bit like a stock market or something; you can't let your emotions, they always say you can't let your emotions get in the way and I think we do, in our processes I'll admit that and then the result is often overcompensation (C2-DH)
		I think it's to manage other people's emotions. To make sure people don't start overreacting because you know suddenly something

Second-order theme	First-order categories	Illustrative quotes
		happens and the signs point you now, you should have done this or that. Or you know and to stay calm in those instances and to keep other people calm. (C2-SDAP)
	Human emotions	It's anxious, everything is anxious, as I say, you end up conceding in some of the discussions. (U2-DS)
		It's a painful process, painful because people are crying to gain access but because of the limited space you can't help them, you can't help them you see. (U2-DVC)
		I think it's some almost sense of joy when students are coming in and you can see they are still bright-eyed and bushy-tailed and excited to be here. (C1-DVC)
		I feel positive about the process that is going to be followed. I feel as I am succeeding in enabling the process and I feel excited about each new cycle you know just to improve. (C2-DIRD)

Various practitioners explained that the complexity makes it difficult to know for certain whether the intended enrolment strategy will be achieved; sometimes, there are events that are not anticipated. For example, Practitioner T7-DVC explained that one such event that caused a major disruption was the FMF movement, which resulted in an approved increase in the national financial aid scheme budget and a transition to a centralised system of administration. The national financial aid scheme administration process is a part of the national strategy to facilitate access, but according to Practitioner C2-PF2, the national financial aid scheme process is a pivotal contributor to the complexity-uncertainty nexus:

> *They (national financial aid scheme) can send us an approved list we can admit those students. And then sometimes they send us a second the list, it's approved but now we are full. How do you handle that? That's also a challenge. And with the national financial aid scheme at this stage probably not going as planned. We already can see that there are red lights for next year, which might have an influence on our registration. But we are trying to manage it as closely as possible.*

Practitioner C2-PF1 suggested that the obligation to implement or try to control the intended strategy is paradoxical since there is a lack of control in the process. She was referring not only to events outside the control of the faculty and university, but to the fact that she, as a planner,

was not a part of the implementation. However, Practitioner T6-RI gave a contrary view – that even if one is in involved in implementation, deviation from the plan is still a reality as a result of emergent strategies. Participant T1-DVC explained that the process is fraught with difficulty: *"There is not an easy way to do it".*

The extant literature underscores the fact that strategic thinking occurs in an uncertain, ambiguous environment (Tovstiga, 2017). Practitioners suppress the upsetting feelings caused by uncertainty (Schwenk, 1984). Various practitioners explained how the transition from the deliberate, planned strategy (enrolment strategy development) to the emergent implementation (enrolment strategy implementation) marked a phase in which they were prone to a number of factors out of their control. The loss of control was marked by an overall feeling of uncertainty, and consequently, the experience becomes loaded with vulnerability and pressure. Yorks and Nicolaides (2012) argue that an essential characteristic required in strategic thinking is the development of one's ability to tolerate the unknown. They suggest that developing learning that supports strategic thinking is scaffolded through organisational forms that are flat and connected.

Practitioner C2-SMA, a senior manager at an enrolment centre, used two metaphors to express the feelings associated with uncertainty and emergence. One metaphor was of a child and illustrated the vulnerability and confusion of staff at subordinate levels during this emergent phase:

> *…a child is instructed by their guardian to take a dishes and put them in the dishwashing machine and later be beaten for putting the dishes in the dishwashing machine by the same guardian that instructed them earlier.*

She explained that the metaphor was directly related to the enrolment meetings that occur during the registration period. At some stage, the enrolments are low in relation to the intended enrolment strategy and the faculty gets instructed at the meeting to admit more applicants. Students are communicated with and they are allowed to register. However, at the very next meeting, after a day or two, it is discussed that the faculty is in trouble because the registration quotas have been exceeded and those in charge are *"furious"* (illustrating the top-down, heavy culture perceived at the meetings). According to Practitioner C2-SMA, one of the key sources of uncertainty is student behaviour because there are many variables that one has to consider,

yet the ultimate decision by the applicant to register is one that cannot be controlled by anyone. This suggests that students hold the power during the enrolment strategy's development and implementation phase. Practitioner T6-RI confirmed that student choice is unpredictable from year to year, making universities susceptible to students' behaviour in a specific year.

According to Practitioner T4-PI, the sense of vulnerability and powerlessness is not restricted to those involved in enrolment strategy implementation, as planners also experience these feeling during enrolment strategy development:

> *…they (top management) rely on our input which is scary sometimes because they truly believe that we do the right things and at the end of the day we are using maths and models and whatever and you think that this will work but there's also a slight percentage, 5 or 10 percent that this will not be the case. At the end of the day you can have protests and… fees must fall - all those things play a role and it's just out of your control. Your predictions will not succeed…*

The frustration of planners was related to the fact that all the uncertainties could not be covered despite best planning efforts. As suggested by Practitioner C1-DIRP, whether or not the intended enrolment strategy will withstand the contextual uncertainties is unknown. Both the planners and the managers, although from different ends of the enrolment strategy spectrum, experience similar emotions during the enrolment strategy's development and implementation.

Irrespective of whether the planners are at the institutional level or the faculty level, there is still a sense of vulnerability. Practitioner C2-PF2, a faculty planner, indicated her feelings using a metaphor:

> *I feel like a very small me in a crutching position in comparison with a very big rock falling from the sky and it will hit me within seconds and there will be nothing left of me and I cannot do anything to stop the rock from hitting me. I am feeling very vulnerable taking into account the magnitude, size and complexity…*

Emotions of vulnerability are clearly a feature of uncertainty in the development and implementation of enrolment strategy. While some might consider Practitioner C2-PF2 is

claiming planning is useless, she was likely referring to the fact that there are limitations to the intended strategy planning that must be considered in the implementation process.

Another metaphor revealed the fact that the uncertainty emerges towards the middle phase of the development and implementation of enrolment strategy, provided by Participant C2-PF3: *"Going through a tunnel and the lights switch off as you are in the middle of your journey".* In enrolment strategy development, one is confident of the plan, but then during implementation, one encounters challenges. Panic develops when one realises that there is a possibility that the targets may not be reached. By the end, if one is able to meet the targets, *"...you still come out alive"*, which expresses the duress that is experienced during the processes and stages.

Practitioner C1-DIRP provided another description of the uncertainty when she used the metaphor of a tsunami to explain the development and implementation of enrolment strategy and the implication for planners:

> *I think probably some kind of natural disaster like a tsunami because you never know quite what to expect. You can plan and analyse until eternity but you can never actually guarantee what's going to actually happen in the end but you have to put systems in place to manage consequences of whatever happens so that the institution can adjust and respond quickly. So it's unpredictable, its complex, it's impacted like by many, many external factors. You can never quite predict it with complete accuracy, it's beyond your control yet you are expected to ready the university for any eventualities.*

In spite of planning, the development and implementation of enrolment strategy is implicitly unpredictable and complex. Practitioners appear to strongly want this to be known. Practitioner C1-DIRP continued by raising the point that the uncertainty reveals severe limitations in linear ways of thinking, forcing people to move from their secure, protected thinking patterns into a more emergent, responsive and unprotected way of being:

> *We want predictability, we want a sense of logic, we want a sense of we can anticipate what's coming to us and we can respond things so that we minimise the risks and so forth. But the kind of environment HE is in, being so volatile and fluid,*

> *both nationally and internationally, what we've had to do is almost revisit all of our tools, our ways of thinking, our ways of being and we've had to embrace complexity because the normal sort of log frame logic that many of us were trained in.*

Moving from a known way of doing things to an unknown way, in other words, needing to change from fixed ways, could possibly raise stress levels.

Emotions are evoked in different ways. As Practitioner C2-SDAP explained, emotions can cause complexity in the development and implementation of enrolment strategy when, on the one hand, a person understands the rational perspective, but the human factor emerges:

> *…in the interest of the institution you can't allow people to enrol later in the year… You can't act in the interest of the individual there. So those are not complex decisions, its complex in this sense, just in terms of the emotional-human factor.*

This creates a conflict that the person has to navigate. It is interesting to note that emotions are considered "an impediment to strategic thinking" because of the overly rationalised positioning of the majority of strategic thinking studies (Calori, 1998:289). According to Practitioner C2-PF1, there is an inherent fear of making a mistake in the development and implementation of enrolment strategy.

Three practitioners used metaphors of an inanimate nature and these provide characteristics of the development and implementation of enrolment strategy. The metaphors were Newton's cradle (C2-PF4), a well-oiled machine (T6-DBI) and traffic (C2-DSEC). Each metaphor expressed certain essential items: a solid, stable process led by a calm person at the institutional level; responsiveness and a person who controls the entire operation; and lastly, iteration, interconnections and information. These illustrate the need for some practitioners to feel safe and stable, and have the process managed in a logical rather than emotional manner. Despite the logical approach, Practitioner C2-PF4 referred to feelings of anxiety, anger, frustration, uncertainty and eventually joy when the whole process is finalised and targets are achieved.

The literature points to personal mastery as the way in which practitioners can inhibit some obstacles. However, as much as an individual may develop personal mastery, there are some

organisational practice that inhibits it. An example is institutionalising personal growth (Senge, 1990). Bui et al. (2013) argue that organisational dynamics and personal qualities are of equal importance to the development of personal mastery; this assertion is in line with Casey and Goldman's (2010) strategic thinking model.

Both emotions and moral issues are under-explored in the literature because these are viewed as a source of irrationality or limitations to 'sensible' or 'sound' thinking (Singer, 1994; De Wit et al., 1998). Indeed, emotions are assumed to inhibit strategic thinking (Calori, 1998). Burgelman, Floyd, Laamanen, Mantere, Vaara and Whittington (2018), who bemoan the fact that strategic thinking literature has a negative stance towards emotions, confirm that both the process and practice streams in strategy research have not anticipated how significant things like emotionality, attitude, or feelings are. In my study, however, I have found that emotionality is clearly a part of the enrolment strategy's development and implementation process. Practitioner C1-DIRP described the types of emotions that are evoked in the development and implementation of enrolment strategy as including a bit of anxiety because of complexity and uncertainty, a sense of hope, and a sense of possibilities connected to working towards something that is meaningful and exciting because universities deal with the future. She summed it up by indicating that there is a *"bi-polar"* continuum of emotions, suggesting that the intensity and polarity of emotions – from the negative emotions of fear and dis-ease to the positive emotions of passion and satisfaction. I developed a word cloud by collecting the various emotions that people mentioned in the interviews, and as shown in Figur, the top three were all negative emotions – anxiety, stressful and painful. Positive emotions that the development and implementation of enrolment strategy evoked were joy, hope, pride and satisfaction.

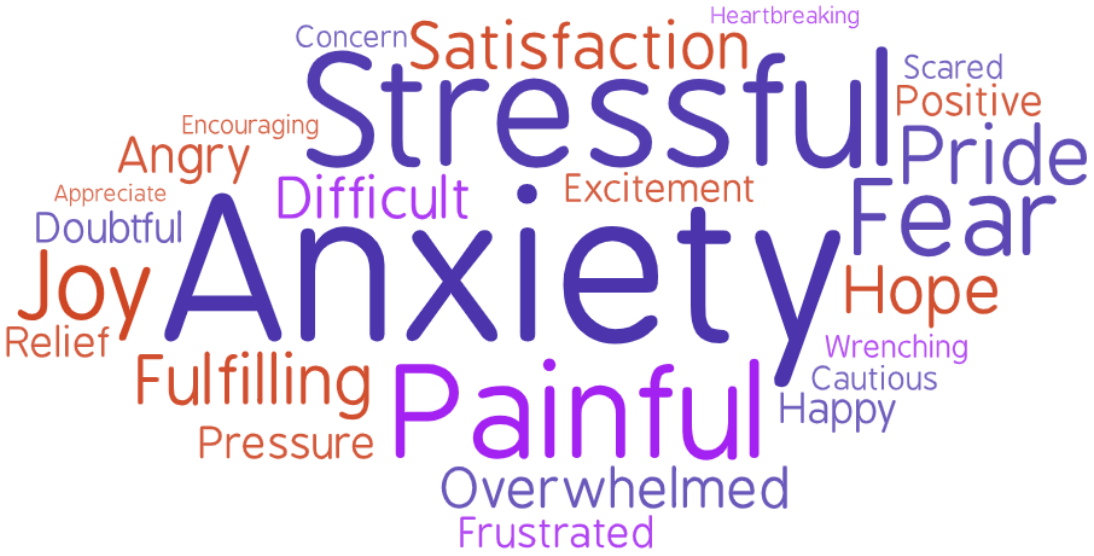


Figure 16: Emotions evoked in practitioners during enrolment strategy implementation

Many strategy studies are based on the rational actor model, which is limited by logical thinking (Duyvesteyn & Worrall, 2017), but there is mounting evidence to show that emotions also influence the range of choices a person takes into account (Friedrich & Wüstenhagen, 2017). According to Burgelman et al. (2018), both process and practice strategy research has neglected the influence of emotions. Calori (1998) argues that there are shortcomings in strategy literature: a bias towards thinking and a resultant loss of other forms of knowledge; a bias towards binary logic and a disregard of feeling (such as emotions and morals).

Although emotions are often an aspect of a person that cannot be ignored, some people are prone to panicking and overreacting, which causes stressful emotions for others who are involved. Practitioner C2-DH stated that *"fear and panic do not lead to the best decisions"* because it raises stress levels. Without a flexible approach, cycles of panic and fear can impede strategic thinking (Vuori & Huy, 2016). The situation is exacerbated when top leadership panics, since the cascading effect creates more pressure for people. In Vuori and Huy's (2016) comprehensive qualitative study of Nokia's downward spiral from 2005 to 2010, involving 76 interviews with top and middle managers, they found that fear had multiple effects. They report that top management's fear response to external risks was to put pressure on middle managers without divulging the seriousness of the risks.

Consequently, middle managers develop internal fears that causes them to limit disclosure of what they consider to be negative information (Vuori & Huy, 2016). Perceiving and managing emotions in large groups of people versus small groups is different, but one of the most important aspects is whether top management team members can regulate their emotions to achieve desired strategic outcomes and relationship effects (Huy, 2012; Ashkanasy & Humphrey, 2017; Friedrich & Wüstenhagen, 2017). Likewise, there is a fear that is based in hierarchical structures (Anderson & Brown, 2010) such as universities. The hierarchical structure can also inhibit creativity compared to a less structured or open structural arrangement (Vuori & Huy, 2016), which suggests that strategic thinking at universities is inhibited.

4.6 Conclusion

In terms of the first level that influences the development and implementation of enrolment strategy, the individual, I found that a key characteristic of people is that they are bounded and experience cognitive dissonance while engaging in the process.

In terms of bounded rationality, people are constrained in their processing capacity, which manifests as lapses in memory, applying their minds critically and making mistakes, and they are bound in the manner in which they balance competing interests. Moreover, they get overwhelmed by too much information and lack understanding of the complexity and significance of developing and implementing enrolment strategies. There is a vast range of skills and experience needed in the development and implementation of enrolment strategy that can pose a limitation to an individual. Another important factor that people can be constrained by is being able to navigate different personalities and develop trust and relationships. Lastly, leaders are bound by their leadership style and a change of leaders can restrict an organisation's development and implementation of enrolment strategy.

Another aggregate dimension that has a bearing at the individual level is cognitive dissonance. There are several contrasting and dissonant views and attitudes towards the development and implementation of enrolment strategy. Some have a technical, fixed view while others adopt a systems perspective. Cognitive dissonance tends to engage a push-and-play effect between a rational choice around organisational benefits and a choice related to individual benefit. Dissonance is created when the whole picture is not considered between the institutional and faculty levels. Furthermore, people think in one-dimensional ways according to their own

needs and functions. And third, reconciling personal beliefs that conflict with the university strategy can create cognitive dissonance. Lastly, the uncertainty and emotions in the development and implementation of enrolment strategy cause complexity.

What is important to note is that many of the difficulties emerging tend to be related to working with people – communicating, negotiating, compromising and eventually committing to the intended enrolment strategy. As a result, there is an emerging sense that thinking about how people respond and the emotions that they experience is important. Individuals appear to be at the heart of enrolment strategy development and implementation and considering people in relation to their attitudes or perspectives are thus necessary.

5 Findings: Part 2 - Organisation

In this second part of the data analysis, I discuss the organisational level that comprises of two aggregated dimensions, namely polemic trade-offs and organisational structures and culture. Below I present findings and, as in the previous section, I intertwine the findings and literature discussion to enrich the findings.

5.1 Polemic Trade-Offs

One of the main factors that will shape the entire enrolment system is how universities respond to the trade-off between access and quality. Hossler and Kalsbeek (2013:9) argue that there are "complex trade-offs" to be made if graduation rates are to be improved while pursuing access goals that stimulate "socioeconomic and ethnic diversity". The first second-order theme that I discuss is creating alignment between priorities at higher and lower levels.

5.1.1 Creating alignment between priorities at higher and lower levels

Balancing priorities in terms of goals and objectives when crafting the strategy includes achieving alignment between the intended enrolment strategy that is submitted and approved by national level and the university's own enrolment strategy. Table 20 shows the quotes and first-order categories that underpin this theme.

Table 20: Dimensions, Themes, Categories, and Data – Balancing priorities

Second-order theme	First-order categories	Illustrative quotes
Creating alignment between priorities at higher and lower levels	DHET intended enrolment strategy and university strategy	I think on one hand it's very pragmatic because we must meet certain targets that are decided upon within the university but also to submit those to the DHET. So this is a pragmatic process on one hand. On the other hand, it is to ensure that we're doing the right things that I've mentioned already but it is also to drive certain strategic foci. For instance, that's in line with university strategy. (C2-DE)
		So growth in postgraduate student enrolments. A focus on the undergraduate to postgraduate ratio. Increasing the qualification level of academic staff, which is critical if you want to grow your postgraduate enrolments. So there are a

Second-order theme	First-order categories	Illustrative quotes
		number of things within the (university) strategic plans that directly connect to the (DHET submitted) enrolment plans. (C2-SDP)
	Drivers of the strategy	Yes, for my faculty like for example my faculty is one of those, the departments that are in my faculty are those that are in higher funding group from the DHET. So, actually they looking at us so that we can have more growth. (U2-DS)
		Our strategic objective is to keep our high-level CESM (Classification of Educational Subject Matter) enrolment within certain bands and if that goes, if we get that horribly wrong there, we know that it takes a long time to correct that. (T5-DIRP)
	Setting realistic strategies	And when I came in there was wild over-enrolment at that time. And people realised that that was a problem but they didn't know how to fix it…so it really, for me it really meant putting the systems in place, devising the means both to enable sensible enrolment planning which we know will never be an exact science but at least sensible enrolment planning to give realistic targets and then to find the means for tracking that and ensuring that we kept within the margins that we had set. (C2-SDP)
		So it's nice talking the talk but I don't think they (top management) are really fed with those key things where they realise but listen this is not realistic, you know so it is about bringing that reality to them somehow by someone so I think there is a huge role to play. I still see there is still some opportunity to fill, because there is definitely a gap still there. (C2-DIRD)
	Being overly ambitious at national or institutional level	Had those targets be more realistic we could have allocated resources, perhaps a little more realistic within the university sector and then made those targets. Now we have to chase unrealistic (national) targets in a certain

Second-order theme	First-order categories	Illustrative quotes
		sense by universities and that has driven some decisions, especially with enrolment planning. (T4-PI)
		I think here I mean I also must not give the impression that we are masters in terms of enrolment planning, we've had horrible hiccups as well, we've had plans that we've had to adjust because we were not able to meet target and I think it's partly because we've always been quite ambitious in terms of our enrolment targets. (T5-DIRP)

According to Practitioner U2-CIO, the overarching tension between two national imperatives were built into the national policies, which is felt in particular by universities that do not have access to vast reserves of third-stream or historical funding. He explained that as long as enrolment is tied to funding, the most significant trade-offs that universities make require a delicate balance between two imperatives – enrolment as income generation and enrolment as quality education. He continued to explain how difficult it is to make this specific *"polemic"* trade-off as implementing is about finding a balance between the interests of the academy versus the interests of the institution and the wider interest. Furthermore, there are times when these interests coalesce and align but the most significant challenge that can interfere with enrolment strategy development and implementation is when these interests are in conflict with one another and tensions emerge. The academics' position indicates they do not want to take in more students, and the institution maintains that academics have to take in a certain number of students in order to be viable.

The shifting emphasis in the SA HE landscape to ensuring student success by improving throughput and graduation rates (DHET, 2012) could act as a deterrent to access. SA universities will be extensively stretched as a result of current budgetary limitations to promote student support programmes while trying to sustain financial resources. In the literature, several interventions are highlighted to ensure both access and success, including the introduction of foundation programmes, tutor and mentor programmes, accommodation and financial support, administration improvements, data-informed interventions, student advising, and responsive teaching (Imenda & Kngolo, 2002; Nel, Kistner & van der Merwe, 2013; DHET, 2016). University leadership will need to be guided by the principles that underpin the development

and implementation of the enrolment strategy to manage higher-level trade-offs. It will require a realistic assessment of institutional capabilities, goals and capacity constraints, supported by extensive consultation and sound development and implementation practices.

There are high levels of uncertainty at SA universities, especially in terms of funding (Jansen, 2018). It may not be a matter of expecting a certain enrolment outcome, but rather being able to recognise that a trade-off is required, adjust very quickly and change nimbly when faced with a variety of unexpected situations; like student protests and consequent demands. Practitioner C2-DIRD suggested that the development and implementation of an enrolment strategy require flexibility in the form of trade-offs:

> *It's that trade-off you know…is this a good trade-off, yes or no…it's very difficult… it's about pitching…that balance between new and continuing…if you're not meeting the continuing, do I now take more new and at what risk and so it's about always that balancing act, so there is always a trade-off. That is the biggest challenge I think to make a decision to say obviously here's a trade-off.*

Practitioner C2-DS suggested a compromise is a trade-off and a prerequisite for all parties to remain reasonable:

> *The staff on the other hand will say if you push too many people into the space, I cannot provide the kind of quality I prefer to provide. So you then have to try and get people to compromise and settle on what is acceptable to everyone…everybody wants to feel that they've done their job to the best of their ability…but the only way you can find a balance is if everybody's going to be reasonable. Nobody can be rigid… So top management needs to be willing to understand that perhaps we're not going to get to the exact number… The academics have to understand perhaps we're not going to settle on the number they prefer. We have to settle somewhere in between and it's my job (as faculty dean) to decide what the value in between is, that is the reasonable and acceptable to everyone. My approach is simply, it has to be a win-win.*

Put differently, prioritisation is required, and determining the boundaries involves complexity; thus, trade-offs are another feature of complexity. In the process, there is a need for people to compromise, but this assumes a rational point of view. In one sense, the rational approach

presented by Practitioner C2-DS could be attributed to her natural sciences background. Still, she raised an important point in relation to the role of the faculty deans as an intermediary between top management and the academics. In general, Practitioner C2-DS had an optimistic, rational outlook.

Practitioner U2-CIO, on the other hand, viewed things differently:

> *…whatever decision that this individual makes it's the wrong decision for somebody…the management books says we must always strive for win-win, in real life its lose-lose. What you can do is try to minimize the loss.*

His words were punctuated with pessimism, possibly because he is a part of top management. It is possible that as a faculty dean, Practitioner C2-DS lacks the experience and understanding of the crises that top management face concerning the sustainability of the university. Practitioner U2-DVC indicated that he tries to compromise in an amicable manner but at times he has to opt for a different approach:

> *I manage how these things get to be allocated with my Dean's… I have to convince my Dean's to say I want you to do this because these are the reasons… It's a painful process, painful because people are crying to gain access but because of the limited space you can't help them…you may never exceed the given number because the moment you exceed…DHET…they punish you financially…*

The strains and pressures that are faced by top management are severe and those who have experience of being in top management, like vice-chancellors, Prof Adam Habib and Prof Johnathan Jansen, tend to project voices of pessimism in the literature. Habib (2016) argues that directing a university in a developing country setting is a brave undertaking, while Jansen (2017) describes the aggressions he faced while in a vice-chancellor position. Both these leaders and researchers question the future of SA public universities, mainly as a result of irrational political rhetoric and lack of national support. Top management appears to be more in a crises mode than an adaptive mode.

There is thus evidence of both an adaptive mode and a crisis mode. Flexible approaches in enrolment strategy development and implementation can therefore assist by transforming

reactive decision making, whether in a crisis or not, into responsive decision making. However, striving for complete integration is considered to be idealistic, so a more pragmatic approach is to accept a mode that allows for flexibility and responsiveness (Elsawah & Guillaume, 2016). In other words, an adaptive mode is the starting point in enrolment strategy development and implementation. There may be a need to be more flexible as the enrolment strategy's development and implementation evolves over time in order to respond to new information.

Such flexibility calls for an acceptance of the transient nature of the environment. Systems thinking offers such an adaptable approach wherein "one begins to appreciate the limits to any person's thinking, or indeed, our thinking in groups and in organizations", encouraging "a partial and temporary view" (Barton et al., 2004:13). Furthermore, systems thinking is considered in the literature as being a suitable framework for complexity (Frank, 2002). Senge (2004) similarly suggests that complexity and change can be overwhelming, making people feel disempowered and blurring accountability, thus weakening responsibility. He argues that systems thinking is an integrating mechanism between theory and practice to create a new paradigm that sees the whole. In this way, system integrated solutions can be identified (Palaima & Skaržauskienė, 2010). Kogetsidis (2011) argues that systems thinking is not limited to one technique but comprises multiple methods. In order to know which technique to implement, those involved in the development and implementation of the enrolment strategy require a basic understanding of how to use the various approaches in creative ways.

There are two primary considerations in the development and implementation of enrolment strategy – the university's enrolment strategy and the enrolment strategy that is submitted to the national level in each six-year cycle. According to Practitioner T6-RI, strategic thinking in the development and implementation of enrolment strategy involves balancing and connecting both these national and institutional imperatives, which requires careful positioning and reflection to create alignment between these requirements:

> *We are also, bearing in mind that the DHET gives us targets as well, so we've got that layer and sometimes we find that DHET targets we have to box quite cleverly to make sure that our targets synchronise with that and to what extent there is that level of or that extent of institutional autonomy to be able to say you know we do want. This is where we see ourselves going so that takes a little bit of careful boxing and careful planning…*

Likewise, Practitioner U1-DIRP suggested that as much as the process begins with the university's own strategy, the intended enrolment strategy submitted to the national level is attached to funding and therefore exerts control over the university strategy. He explained that it starts from a strategic positioning of the university and what the university would like to achieve. However, because of the the national level's involvement and the funding being attached to it, the numbers come to take on almost *"a life of their own, but certainly they have an importance of their own however else one's trying to contextualise these numbers".* In other words, because of the connection between the funding and the targets submitted to the national level, the university strategy tends to be compliant. The mechanism that exerts power over the university strategy is the threat of punitive measures if the institution's intended enrolment strategy is not met. As indicated by Practitioner C2-RI:

> *What is needed and then to make sure that you don't exceed your numbers or you get that magical two percent above or below. If it's over that then we are in trouble.*

Practitioner T1-DVC explained the dilemma facing universities during the development and implementation of enrolment strategy as the dilemma whether it is best to be over-enrolled or under-enrolled because universities are penalised either way.

Institutional goals or the intended enrolment strategy should drive the development and implementation of the enrolment strategy rather than vice versa (Bischoff, 2007a; Hossler & Kalsbeek, 2013). My findings show that public universities in SA do not have the scope to develop intended enrolment strategy without taking cognisance of the national goals. National imperatives in terms of the fields of study and other national enrolment goals act as the overall enrolment framework within which universities function. The mechanism to control the performance of universities comprises of punitive measures and appears to work well in ensuring that universities adhere to intended enrolment strategy. According to Menon (2014), the national level punitive measures can result in perverse actions from the universities. Moreover, the "material-affective infrastructure" creates a "peer-pressure ontology" (Brøgger, 2016:87) that drives a competition fetish in HE (Naidoo, 2016). A fixation with the competitive culture has partly been fuelled by university ranking systems being regarded as highly problematic for universities (Naidoo, 2016).

Funding is the primary driver to steer national imperatives. The funding is calculated using a funding formula, based on a grid that is differentiated by field and level of study. The fields of study are science, engineering and technology, other humanities, education and business/management. Practitioner U2-DS explained that universities are compelled to achieve a specific mix amongst fields of study:

> *…they are saying that numbers in humanities must reduce. You need to grow in SET - science engineering and technology. So we are forced by the system, we are forced by the system to do that.*

Apart from the field of study, funding is also differentiated based on the level of study so undergraduate enrolments attract a lower subsidy compared to postgraduate enrolments. Practitioner T5-RP explained that their university is changing towards more postgraduate enrolments:

> *I think for us the key thing is this shift between under-grad and post-grad proportionately and that also is a cultural shift within a university, it impacts at a number of different levels and it impacts the kind of university that we want to be so we want to be much more research-focused and research lead in terms of what we are doing…*

The field of study is a way that enrolment influences strategy because by changing the enrolment profile composition, an institution can increase funding. For example, students in specific fields may attract more external scholarships and bursaries. Enrolment planning and management can therefore be used to leverage funding opportunities. In SA, there is a higher proportion of funding extended to the science, engineering and technology (SET) fields compared to other fields. In order to attract more funding, institutions may thus concentrate on recruiting more students from SET fields.

Setting a realistic intended enrolment strategy is an essential step in the development and implementation of enrolment strategy because, as Practitioner T2-SDP explained, the university she worked at had previously been ambitious and failed to achieve the intended strategy, which negatively impacted on subsidy; the intended strategy and realised strategy varied significantly. In order to curb the gap between the two, being as realistic as possible

while incorporating sufficient ambition is important in the development and implementation of enrolment strategies. There is a need to be guided in terms of what is realistic and what is not as this focus on top management may be the result of a top-heavy culture or process. Practitioner T1-DVC suggested that being too ambitious or stretching targets is risky because not achieving the strategy can lead to penalties.

Being overly ambitious at the institutional level can go wrong, as Practitioner T5-DIRP described. Arguably one of the most interesting suggestions that were made was that the national targets were too unrealistic, as described by Practitioner T4-PI:

> *And that we strive to become and transform and enhance ourselves from a developing to a developed country, with those unique targets that were already accomplished in the developed world. And so, that's one point in my mind that may have played a role in the decision making in terms of setting those targets. Because if we can reach those targets we will be way ahead of the whole of Africa, in terms of our population figures and what we have accomplished.*

Moreover, he suggested that the timing when the enrolment strategy is developed has a bearing. Thus, the fact that the national targets were developed at a time when the economy was booming, but is currently under great strain, makes the situation untenable.

Various technologies are used for setting realistic intended enrolment strategies. First, Practitioner C2-SDP felt putting systems and monitoring in place would ensure *"sensible enrolment planning"*. One system that does not necessarily support sensible enrolment planning was described by Practitioner T1-DVC:

> *...you set this target and you must meet it so we are coming very managerialistic in that way… I don't think it's a good philosophy… I mean in our performance agreements…if I am a full professor, I will put down the minimum so that I am a top performer. I will not set a stretch target in my performance agreement… I might not meet it…*

It appears that as much as monitoring systems are needed in developing and implementing an enrolment strategy, there are risks of swaying the intended enrolment strategy to favour individual performance.

Performance management systems, especially in the public sector that is marked by complexity, cannot be condensed to one-dimensional performance systems, which are prone to exploitation (Arnaboldi et al., 2015; Buckingham & Goodall, 2015). For instance, Arnaboldi, Lapsley and Steccolini (2015) investigated the effects of performance management systems at two public hospitals in the UK (Lothian Health and Mid Staffordshire NHS Foundation Trust). In the former, it was found that records were being manually adjusted so that quantitative targets could be achieved. In the latter's case, instead of prioritising the needs of patients, targets and publicity initiatives were the focal points. Consequently, alarmingly low standards in patient care led to the hospital being closed. Although performance management systems are only one example of how a system can be manipulated for personal gain, the point that has relevance for my study is the fact that there are potentially other quantitative, one-dimensional monitoring systems that pose similar risks to the development and implementation of enrolment strategy. The types of data and how the data are used to make a decision are critical in monitoring systems (Denisi & Murphy, 2017). Blunt organisational systems that are not tailored to the significant people who engaged in specific roles tend to have undesirable effects (Arnaboldi et al., 2015).

Second, Practitioner C2-RI confirmed that limits in terms of space, capacity and infrastructure must be considered to set realistic targets. According to Practitioner T6-PI, resource allocation is another mechanism that facilitates realistic enrolment strategy development:

> *So when you have to think about it in just not the numbers, the numbers give you direction but you need to understand the holistic picture of the university in terms of resources, finances, availability of staff members and people with correct supervision capacity.*

She explained that the impact of operationalising the numbers at the lower levels in the organisation occurs as a driver to understand what the numbers are going to mean at the lower levels, and what needs to change or improve. Strategic thinking involves analysing both external and internal factors in the development of strategy, and that will guide decision making

and provisioning of resources (Pisapia et al., 2016). Practitioner U1-DIRP expressed a metaphor to describe the development of realistic intended enrolment strategy by developing a strategy according to the prevailing resources:

> *I suppose you could say its cutting your coat according to the cloth or just making sure that your aspirations don't get way ahead of the realities of it.*

Practitioner C2-RI highlighted a problem related to setting a realistic intended enrolment strategy, namely convincing people to grow their enrolment without changing their resource base. Put differently, growth but with the same resources in the sense that resources are not used maximally. According to her, it is difficult to convince people of changes. It could be proposed that the determination of maximal use of resources is a tenuous issue, however, being the registrar of a university, she may have a different view of resource allocation compared to a faculty staff member.

Third, a different view was expressed by Practitioner C2-PF1, who had a suggestion to develop realistic intended enrolment strategy. She suggested having proactive training to build the knowledge and understanding of departments, which would facilitate the development of realistic intended enrolment strategy:

> *I think it's accurately predicting the targets for each department and then fulfilling them. It's not just about meeting the targets but it's about having an educated planning process prior so that those numbers are achievable and that you are not either, that you didn't get it wrong…*

The proposed instrument of building knowledge and understanding of the context and the enrolment system in general, is in line with the literature (Arnaboldi et al., 2015; Black, 2010). It is critical that the impact of the complex context and culture of public universities be grasped and understood by all those involved.

The balance between setting an intended enrolment strategy that is both realistic and aspirational as opposed to unrealistic and overly ambitious is referred to as "sizeable stretch" by Hamel and Prahalad (1989:67). Still, the context is critical and needs to be incorporated into the development of clear, realistic enrolment goals (Wallace-Hulecki, 2013). Thus, in the

context of SA public universities, the determination of the enrolment stretch can be determined by a combination of a multi-dimensional, qualitative and quantitative monitoring system, resource assessment and proactive training in the development and implementation of enrolment strategy.

Practitioner T5-DIRP put forward a generalised notion of institutional identity as the basis of the development and implementation of enrolment strategies, and believes that an understanding of the nature of the university should be considered because:

> *…it shapes the kinds of programmes you offer, it shapes what is being taught within those programmes, it impacts the level at which it's being taught and maybe it sounds very abstract if you look at it from a very high level and it's sometimes difficult to translate that into the detail of student numbers*

He maintained that *" …unless the university is clear about who it is and what it wants to become… It's difficult to do meaningful enrolment planning".* Conversely, Practitioner C2-SDAP felt that the regulatory environment was not always conducive to thinking big and presents a stumbling block, in particular when based on institutional identity:

> *…if as a university you want to carve a particular identity…there are so many regulations and rules. You can't think big because you don't know. So if the VC wants to make living this pan-African vision – you know it takes three years even to get a partnership going because the regulatory process is so tedious that people in the contractual agreement might even be dead by the time you actually get approval. So how do you think big? And that is about enrolments.*

She cited a hypothetical example of signing an agreement with Tanzania – by the time agreements are in place, it could be too late to enrol students from Tanzanian universities.

These two views suggest that when creating an enrolment strategy, a vision of an overall identity may be needed, but it could take time to manifest in terms of enrolments. Thinking about how the university's identity translates into enrolment realities may need to be considered when shaping the identity as this will ensure that the created identity can be achieved. Cowburn (2005) explains there are, at times, disparities between idealistic and realistic identities at universities and leaders can become enamoured by strategic thinking.

Thus, considering the enrolment realities in conjunction with the institutional identity could help a university temper their ambitions to be more realistic. Another benefit of developing the institutional identity alongside the pragmatic enrolment realities could moderate the myth of rationality that tends to exist at universities (Sharp, 2002).

A university's identity can be connected to its enrolment in various ways. If an institution's identity is related to undergraduate teaching, then the enrolment profile will be different from an institution that aspires to have a strong postgraduate and research focus. Alternatively, if an institution is in transition, the proportionalities between postgraduate and undergraduate enrolments will shift. Or, if a university wants to improve the diversity of the student body, enrolment goals will reflect the desired outcomes. Student enrolment patterns provide crucial information for universities because of the income-related consequences (Hayward, Ncayiyana & Johnson, 2003). Moreover, in terms of funding, student enrolments determine income either through tuition fees, government subsidies or both. Enrolment can be used to steer towards strategic goals. Student enrolment profiles have likewise been shown to bolster the external market position of a university (Huddleston, 2000). Strategic thinking and the development and implementation of an enrolment strategy are thus inextricably connected.

Another component of a university's identity is the approach to developing the enrolment strategy – either top-down, bottom-up, or a combination. Practitioner T5-DIRP mentioned the use of a top-down approach: *"I know there are universities who actually build their enrolment plans up (from the bottom)…whereas we actually start with the outside frame and then we pull it in (from the top)…".* Conversely, Practitioner T3-PI explained how time-consuming and intensive the bottom-up approach is:

> *…we invited staff from the bottom-up and because we were open, we opened ourselves to communication to answering questions, we didn't just limit it to a one hour workshop, we set like four hour workshops…we really gave time and communication to it and then we also followed up with lots of supporting documentation like the historic enrolment plan, there's your data base from the year 2013 to now.*

There are a number of embedded tensions between the top-down and bottom-up approaches because issues on the ground are received differently, requiring careful balancing (T6-DIRBI

and DVC-T1). It is interesting too that both a deputy vice-chancellor and director, although at different levels in the organisations, agreed that both the downward *"cascading process"* (C2-DIRD) from top to bottom (disaggregation) and the upward process (aggregation) are messy. Through these findings, it is evident that universities have different ways of managing their enrolment strategy's development and implementation, but that irrespective of the method, there are underlying difficulties.

5.1.2 Evidence and ethical decision making

Another factor that influences both the development and implementation of enrolment strategy is decision making. Table 21 shows the quotes and first-order categories that were used to develop this theme.

Table 21: Dimensions, Themes, Categories, and Data – Decision making

Second-order theme	First-order categories	Illustrative quotes
Decision making	Evidence-based decisions	We don't have enough capacity on data analysis, it's quite a big thing and there's not an institutional culture and probably not really a sector culture of evidence-based on data driving policies... So we face that kind of thing where it's just very unsophisticated use of evidence. (C2-DH)
		We obviously spend a lot of time looking at our past numbers, seeing our trends and patterns… For the last three years it's been ten percent attrition, this year it was only seven… There is nothing we can do about that you know, it doesn't help to say you got your numbers wrong. It's human behaviour, we cannot make it a scientific equation you know we can do it as best as we can and then it's a level of pragmatism that comes into it. (T6-RI)
	Ethical based decisions	One of the things that we started bringing about now quite talking about enrolment planning is the moral imperative behind enrolment planning... Then you have to balance enrolment for income generation and then enrolment for quality. (U2-CIO)
		Yes, I think it is unethical practice to bring in students - to lower, for example, your entrance requirements in order to make your numbers. (T2-SDP)
		Then the other issue that has now emerged is that students because they cannot get jobs. (U2-DM)

Practitioners C2-DH and T6-RI presented contrasting views on evidence-based decisions. While Practitioner C2-DH suggested there was a lack of evidence-based decisions, Practitioner T6-RI explained there are limitations to evidence-based trends. Practitioner U2-CIO touched on a systemic fear in decision making at universities that leads to organisational paralysis:

> *People are risk-averse… And many institutions now, ours included are very risk-averse…that's not how I work. If you make a decision based on facts that you have at your disposal, I will support that decision… Meeting after meeting and a decision is deferred…because we don't have the guts to make the right decisions.*

Thus, although evidence may be available, the underlying decision-making culture inhibits evidence-based decision making. Another perhaps more serious problem was the perceived lack of people who have the necessary skills for data analysis and interpretation, in particular. Practitioner C1-DIRP suggested that people do not always understand and interpret the evidence they are working with, even academics. It is possible that in the endeavour for evidence-based decisions, the basics, such as data literacy, have been overlooked.

What was interesting to discover was the prevalence of ethical decision making in the development and implementation of an enrolment strategy. While the process is pragmatic and related to meeting the intended national level enrolment strategy, another imperative is to *"ensure that we're doing the right things…but it is also to drive certain strategic foci…that is in line with the university strategy"* (C2-DE). Thus, while the the national level's intended enrolment strategy does exercise some sort of power over the university strategy, an ethical line is drawn to ensure that the university is behaving in a principled fashion. The moral imperative in enrolment was raised in relation to a number of issues, including the tension between access and success, exclusion processes, and the selection of students and employability of graduates. Practitioner T4-DIRP equated registering students whose chances of success are limited to a *"crime",* while Practitioner T2-SDP reflected on how the pressure to meet targets and improve access can make one lose sight of the challenge of student success:

> *It is also creating unethical practices within institutions where you take in students that you know will never succeed because of their low AP scores but you are willing to take them to make the numbers. You are willing to put students who should not be in humanities, you put them in humanities, but they actually wanted to do*

> *mathematics but they do not qualify, so you put them in humanities so that they can make your numbers. I mean, those things are not acceptable in my view. But what do you do if you do not make your numbers?*

Related to ethical boundaries, Practitioner C2-DM, a faculty dean, expressed an almost guilty conscience when he expressed doubt as to whether graduates will find employment:

> *…and to me sitting in a one and a half hour graduation. When I see this high number of students in those programmes I look at the parents and look at the excitement, their hope they have in these kids that are getting this qualification. You look at the expense they have gone through for the event. And to think, will there be a return in this investment?*

In other words, on the one hand, he feels pleased that students are graduating, but when he considers their future, he is uncertain about whether they will obtain employment. While some may argue there are drawbacks to a leader of a faculty feeling this way, I argue that he has some ethical grounding in terms of seeing students as human beings with futures, and not objectifying them. An ethical framework is one that must flow from leadership (Schaubroeck, Hannah, Avolio, Steve, Lord, Treviño et al., 2012) and organisational context is considered to have a moderating effect (Schwartz, 2016).

Globally, accountability at public universities is a reality that demands decisions be validated, such as the allocation and usage of resources, quality of programmes and curriculum development (Daniel, 2015; Hora, Bouwma-Gearhart & Park, 2017). In SA, the three accountability levers outlined in the policies that are central to universities are planning, funding and quality. The side effects of these have been universities that are validated and shaped by evidence (CHE, 2016a). One form, and arguably the most significant, of the planning and funding levers is the development and implementation of enrolment strategy. The data shows there are some fundamental problems with evidence-based decisions at universities and these include that people are risk-averse and, perhaps most concerning, to some degree people are perceived as data illiterate. Accordingly, along with the need to provide data in the enrolment strategy's development and implementation, there needs to be a translation function that gives significance to the data in terms of functionality (Daniel, 2015). According to Stewart, Dayal and Langer (2017), although the term 'evidence-based decision making' is

bandied about, there are inconsistencies in the definition and understanding that can undermine engagement, so they suggest creating a shared understanding to enhance the development and utilisation of evidence. An initial step in the development and implementation of an enrolment strategy would be to shift from viewing data as a compliance culture to data as supportive knowledge (Hora et al., 2017).

Another gap in the strategic thinking literature is that there is no mention or clarification on the systems thinking methodologies that are best suited to strategic thinking. There are three systems thinking approaches, namely hard-systems thinking, soft systems thinking and critical systems thinking (CST). Utilising CST is considered to be a suitable approach within the current context that organisations face, particularly in terms of promoting dialectical reprieve as a key mechanism and embedding an ethical awareness (Maistry & Bui, 2018).

5.1.3 Shared mental model

The next second-order theme is a shared mental model that is needed to decide upon and ease the consequences of the trade-offs that are made. Table 22 shows the quotes and first-order categories that were used to develop this theme.

Table 22: Dimensions, Themes, Categories, and Data – Shared mental model

Second-order theme	First-order categories	Illustrative quotes
Shared Mental Model	Shared responsibility	For me, that is something that I believe is a criteria for good enrolment planning that both players must all know and understand. (C2-RI)
		I would say that. I would say, the word I would use is translation both ways because (laugh) they are completely separate languages sort of. Its separate worlds. So there has to be something that links them together that can paint pictures for why things on the ground are important at a strategic level and why things are the other way. (C2-PF1)
		So when I say I have to manage it, you will know from your research that enrolment planning is not a one-man show, it's a very large collective of people. In order for it to happen the way it should happen you are very heavily dependent on a number of people in the university, you know for things, for processes to work properly, for

Second-order theme	First-order categories	Illustrative quotes
		systems to work properly but also for people to just do what they are supposed to do. (T6-RI)
	Common purpose and measure of success	We are reaching the targets that we set for ourselves. (U2-DVC)
		Ultimately I think success is always measured in terms of monetary gain. So you know, success for us is that the plan works, it brings in the right income, that the qualifications that we offer are relevant to industry and the qualifications are relevant to our students in terms that they are going to be better employed because of what we offer and how we offer it and the content of what we offer. (T3-PI)
		Yes, to succeed and at the end get the employment obviously yes. (U2-DS)
		And our university is heavily dependent on government subsidies, so we have to make sure that enrolment planning is going to make us financially viable. (T2-SDP)
		…enrolment like I say is the driver of the core business of this institution. (C2-DIRD)
		Actually being able to differentiate yourself and stand up and out of the crowd globally. With a very clear sense of purpose and dedicated staff. And dedication is not just throwing money at it. It's about emotional, spiritual dedication to the course. So how do we manage this now in terms of our enrolment planning? (C2-DM)

Practitioner T6-DIRBI proposed that there are *"islands of information"* that are created as a result of siloed structures. Practitioner C2-SDAP explained that separating the planning from the implementation is risky:

> *…one of the variables that could topple us over as a university was to separate enrolment planning as an exercise from the actual processes of registration, if they were controlled by different people, and they weren't brought together in meaningful ways…it would be better to bring it together…then you had greater control over the variables. That the person who was dealing with the plan was not the person who was writing some scholarly enrolment plan without being involved in the texture of actually what was going on the ground.*

Practitioner U2-CIO indicated that their university had changed the organisational structure to curb disconnects and provide integration*:*

> *The gap was that many of these functions resided in silos. And many of these functions because they resided in silos they would work largely owing to the kind of cooperation between people who led those units. So if you had individuals who led these units and they decided to work collaboratively and freely exchange information and intelligence, what we like to term intelligence, about the institution, then the units worked. But where we had these units that evolved and they evolved in silos and they rarely spent time talking to one another*

It was interesting to note that University U2 had experienced a disruptive event when it was taken under administration[4] (*"incentive to change"*) that forced a structural reconfiguration. Practitioner C1-DVC explained that the university that she worked at was adopting a different approach to achieve structural integration. They were planning to hire a person who would not have allegiance to any one group but would work across people as an enrolment manager to coordinate all development and implementation processes of the enrolment strategy. Universities thus understand the need to drive integration in the development and implementation of enrolment strategies, but are adopting different approaches to achieve it.

Universities tend to have a formalised, hierarchical structure with specific functions within units such as divisions or departments. There are specific structural similarities at universities, but generally, the highest authority at a university is Senate. Pennock, Jones, Leclerc and Li (2015) suggest that embedded structures at universities must be open to performance assessment to assess their effectiveness. Structures serve as a conduit for communication and collaboration between people and provide task boundaries (Bonn, 2005). Decisions that are made in a democratic way by some structures, in particular committees, are overruled by members of university's leadership who do not support the decisions (Ogbogu, 2013).

Heracleous and DeVoge (1998) argue that wide stakeholder engagement at all organisational levels is critical in closing the gap in strategy implementation; in other words, between developing and implementing the enrolment strategy. Such engagement encourages the

[4] This means that an independent person was employed to investigate governance and management challenges at the university.

stakeholders to make connections between their departments and others so that an organisational outlook is developed (Swayne, Duncan & Ginter, 2008). This interconnectedness is emphasised by Taylor and Machado (2006), who suggest that the strategy landscape at universities comprises of a range of related components. These include "institutional culture, strategic planning, leadership, institutional research, resource allocation, financial management, personnel and human resources management, research and scholarly activity, student and campus support services, academic services, internationalisation and external relations" (Taylor & Machado, 2006:139).

It is interesting to note that the first era of enrolment management in the US was marked by structural changes within universities (Penn, 1999). Admissions and financial aid functions were merged under the recruitment banner, which later absorbed functions such as "registrar, bursar, orientation, academic advising, retention, institutional research and marketing" (Hossler & Bean, 1990 in Lobasso, 2005:21). Kemerer et al. (1982) established a structural model for the development and implementation of enrolment strategy that outlines four structures: committee, coordinator, matrix, and division. The model proposes that as an institution increases institutional commitment, expertise and enrolment success, it progresses to a more evolved development and implementation structure. The development and implementation of enrolment strategy Transition Model, developed by Dolence (1993), outlines five stages, distinguished by institutional enrolment trends and messages conveyed by the institution. The five progressive stages are denial, nominal, structural, tactical and strategic. Bischoff (2007) combines these two models, thereby relating the development and implementation of the enrolment strategy phase (in relation to achieving optimal enrolment) and the development and implementation of enrolment strategy structure. A nominal stage corresponds to a committee, structural stage to a coordinator, tactical stage to a matrix, and strategic stage to a division. The combined model seems to convey the idea that by moving to an enrolment division, an institution can move successfully to optimal enrolment. However, this is not the case; rather, a paradigm shift towards strategic decision making is required (Bischoff, 2007).

As registrar, Practitioner T6-RI explained that there is active involvement in ensuring that the intended enrolment strategy is achieved and assuming that responsibility. There is an interplay of variables at the institutional level that, as registrar, she feels is her responsibility to manage.

Practitioner T6-RI indicated there was a clear distinction between who takes responsibility for the enrolment strategy's development and implementation at the university:

> *…certainly I share, we have a shared responsibility with the Deputy Vice-Chancellor of Academics so when we are talking about enrolment planning... Obviously the Department of Higher Education…sees the DVC academics as being…responsible for teaching and learning ultimately but, and I think our DVC sees me very much as being… I'm always part of the strategic planning so when we go to meetings at DHET I am always there but I certainly think the expectation is for me to make sure that it actually happens then.*

Put differently, the deputy vice-chancellor has overall responsibility, but his practical responsibilities end when the enrolment strategy development phase ends. Thereafter, she, as registrar, takes over the practical responsibilities in the enrolment strategy implementation component to ensure that the intended outcome is achieved.

The national imperative of enrolment strategy development involves setting specific input and output-intended enrolment strategies per university, with respect to the major fields of study, qualification types and full-time equivalents to obtain the desired graduate output that will meet national needs. These processes are focused on target setting and are therefore rightly termed an enrolment strategy development approach. As explained above, an intended enrolment strategy at the institutional level is developed, which is then disaggregated at the faculty and departmental levels. At the faculty level, deans are responsible. Typically, in the SA context, enrolment strategy development responsibility lies with the Deputy Vice-Chancellor: Academic. However, there is recognition that control over planning is not adequate and that institutions need to ensure the intended enrolment strategy is achieved through enrolment strategy implementation (DOE, 2005). Pillay (2010) concurs with the distinction between the development and implementation of enrolment strategy components at the institutional level. Stoop (2010) also refers to these two stages separately and suggests that both the development and implementation of enrolment strategy are difficult as multiple people have responsibilities and therefore multiple inputs are required.

In contrast to the registrar at University T6, the registrar at University C2 (C2-RI) explained her role in relation to enrolment strategy implementation:

> *…although currently, the DVC academic is overall the one that needs to be accountable for enrolment and according to our targets… According to the principles that we decide and principles which are advice, they (the faculty deans) will manage enrolment, for example, deciding to keep the cycle open and to see whether it's necessary and so on. So that's more my responsibility, I will do it…in consultation with the DVC but more and more I'm taking over some of those decisions and also like I said advise her on these matters.*

This account explains that although the faculty deans assume responsibility at the faculty level, at the institutional level, both the deputy vice-chancellor and registrar appear to be involved. Thus, the two registrars in the sample provided distinct accounts of how two universities manage the nexus between the development and implementation of their enrolment strategies. Each approach is likely to yield various benefits and disadvantages. The first approach of separating the development and implementation of the enrolment strategy outcome is accomplished via distinct individual responsibility. The second might use the individual responsibility model at the faculty level but tends to stray towards a type of collective decision making. What the above varying accounts suggest is that there are different approaches to the development and implementation of enrolment strategy, which adds to the dissipative nature of complexity. Joint decision making is beneficial in reducing the negative effects associated with an individual taking responsibility, such as the impact of stress (El Zein, Bahrami & Hertwig, 2019). However, governing the development and implementation of enrolment strategy together could pose challenges as well.

The pace and complexity of developing and implementing an enrolment strategy mean that the deputy vice-chancellor and registrar would be under pressure because of the pace of the process. Mahmoodi, Bang, Olsen, Zhao, Shi and Broberg (2015:3835) found in an empirical study across three countries (Denmark, Iran and China) that there is an "equality bias" in joint decision making that detracts from the fact that comparative competence influences outcomes. Nevertheless, the registrar at University C2 appeared to be aware of her limitations in the development and implementation of enrolment strategy due to her lack of experience at the institutional level; but indicated that as she learns, she would take on more responsibility. The individual responsibility model would likely be more transparent compared to the joint responsibility model that could breed ambiguity.

The benefits of developing a shared mental model are not limited to a shared understanding of success and purpose but can extend into a shared team cognition throughout the university. Willems (2016) examined how the underlying community influences in a non-profit organisation was connected to mental models and shared team cognition, and involved a sample of 402 leaders from 44 non-profit organisations. He found that the characteristics of a shared team cognition comprises of multiple layers and emergence, and recommends that teams need to be encouraged to continuously align proficiency, inspiration and diversity. Finally, he recommends that leadership's endeavours to support the development of mental models are critical to its success. Unfortunately, he does not factor organisational culture and context into his study, so it is unclear how these variables would have affected his results. Nevertheless, his study provides a basis for appreciating the value of shared mental models amongst team members. In my study, the team members are those involved in the development and implementation of enrolment strategy and they are therefore dispersed across the organisation.

Another advantage of a shared understanding is that it can lead to an improvement in functioning (Van den Bossche, Gijselaers, Segers, Woltjer & Kirschner, 2010). Outcomes also improve when there is a common interpretation of what needs to happen (Jonker, Van Riemsdijk & Vermeulen, 2010). Strategic thinking in the development and implementation of enrolment strategy is an opportunity for a comprehensive, institution-wide process that can promote a shared mental model through collaboration, shared responsibility and integrated planning. However, this cannot occur if all involved are not in sync. This does not mean that everyone must agree on everything, but they must be able to have an intersecting representation of the important features of the environment (Van den Bossche et al., 2010).

While the development and implementation of enrolment strategy require the cultivation of a collective spirit – and there are examples of universities that have shared responsibilities amongst support units – there are limited examples of shared responsibility across support and academic sub-cultures (Henderson, 2005; Black, 2010). According to Chowdhury and Jangle (2018:210), trust is an essential element that nurtures "a sense of co-ownership and shared responsibility". More tangible, effective ways in which to bridge the divide between support and academic units are needed for the developed and implemented enrolment strategy to flourish.

5.2 Organisational Dynamics

Organisational structure and culture are both well-known factors that influence the organisation in several ways as these shape the organisational context (Martins & Terblanche, 2003).

5.2.1 Organisational structures

Table 23 shows the quotes and first-order categories that were used to develop the theme of 'organisational structure'.

Table 23: Dimensions, Themes, Categories, and Data – Organisational structure

Second-order theme	First-order categories	Illustrative quotes
Organisational structure	Committees are not the appropriate structure	We have too many committees for sure…committees are devices for distributing responsibility away from any individual who can be held to account (C2-DH)
		You could have a committee of the role players or something but that person has got to drive the decision making. (C1-DVC)
		I think things like…committees…make it difficult sometimes for universities to quickly respond and adjust (C1-DIRP)
		…you see planning is not working in its own little silo, it's not about you as a university branch engaging with the university (T7-PI)
		…where we had these units that evolved and they evolved in silos and they rarely spent time talking to one another. (U2-CIO)

Practitioner C1-DVC explained that committees dilute responsibility and accountability in decision making. Another problem highlighted by Practitioner C1-DIRP is that committees are not sufficiently responsive as meetings can stretch for long periods. Similarly, Practitioner C2-DIRD described:

> *I think you know it is about making the meeting also more effective…a meeting going on four hours is not saying it's a good meeting. A meeting within an hour with good decisions and you now a short sort of briefing of you know what is the*

> *key issues, what is the you know steps that need to be taken is much more effective in terms of managing.*

It was interesting to note that three practitioners, all from the same university, felt significant discomfort concerning enrolment committee meetings during registration. Practitioner C2-DH described that: *"it comes out once a year we sort of grit our teeth and go through it".* Practitioner C2-DE stated frankly, *"Let's be quite honest about that but the meetings are still not my favourite meetings…".* Both practitioners are faculty deans, however, Practitioner C2-PF2, a faculty planner, likewise expressed negative views:

> *We will sit in that meeting, no don't go to your waiting list now…give it… Three days later, why didn't you go to your waiting list earlier? If you would do you're dammed and if you don't you are also dammed… If you don't meet your target you are in trouble, if you over-enrol you are in trouble.*

It is possible that the complexity and uncertainty of developing and implementing the enrolment strategy were not fully understood at these committee meetings.

The enrolment strategy's development and implementation are diffuse functions across the organisation, as suggested by Practitioner T5-DIRP:

> *…there are so many different role players…it's faculty, it's departments, and it's from very junior to very senior staff in the institution involved in this as well and getting the shared sense of where we want to go is often quite difficult to achieve and understanding that enrolment drives so many different elements and processes within a university.*

Similarly, Practitioner T6-RI indicated that the development and implementation of enrolment strategy is not a *"one-man show"* but that it involves a large collective of people. She explained how there are dependencies on a number of people in the university for *"processes to work properly, for systems to work properly but also for people to just do what they are supposed to do".* Thus, apart from the soft skills, developing hard structures to integrate people is another advantage.

Practitioner T1-DVC explained how, during the development and implementation of enrolment strategy, her university uses an integrated structure to ensure transparency by meeting every morning from the day that registration begins from 07h30 until 09h00. This structure includes multiple role players such as finance, administration, student leaders and student residences to reflect on the previous day, assess the current situation and decide on the way forward. Challenges identified by the student leaders concerning registration and accommodation are discussed. She explained how:

> *…we don't always have all the answers and we don't always agree but at least when the student leaders walk out of there we are all on the same page and the fact that finance is there and the director of registration and so, it just helps us to take a collective view and hear the views and then we take a decision.*

The integrated structure facilitates collective decision making and allows stakeholders to generate an integrated perspective of the whole enrolment process. One of the main objectives is to ensure that there is a common understanding, especially with student leaders.

According to Practitioner C1-DVC, including students in the processes is similarly important to close gaps in communication:

> *I allow more representations from students on it because it's easier to have the students there to make decisions than to have them running around causing mayhem but they have to get trained, that's the rule so they get trained in the process.*

Having students understand the university's position and listening to the student's voice emerged as a critical factor after the FMF movement, when students united in solidarity against universities and the government (Mutekwe, 2017). It is therefore understandable that student inclusion in managerial forums has developed at universities. Here, though, there is an example of proactive leadership where top management is serious about not just including students but also training them to avoid future problems.

The development and implementation of enrolment strategy extends as a mechanism that can be tailored to engage with students on issues related to service delivery, transformation and

funding, using the student enrolment lifecycle as its basis. In this way, the enrolment strategy's development and implementation can facilitate the paradigm shift to a more student-focused approach. Deep engagement between students and staff is required (Ndelu, Edwin, Malabela, Vilakazi, Meth, Maringira et al., 2017). Student enrolment processes can act as a common platform for institution-wide engagement, but in order to meet the transformation goals related to access and success, the student-focused approach must be supported by a transformation focus. There is anecdotal evidence to suggest that there are faculties that have strategic drivers and that one of these, namely transformation, is connected to both national and student imperatives. Hence, the model for the development and implementation of enrolment strategies at SA public universities needs to be shaped by a student-centric transformation approach. Such an approach could have the hidden benefit of addressing some of the key enrolment challenges, one of which is a poor participation rate of African and coloured students (Lewin & Mawoyo, 2014). Additionally, by incorporating the student relationship-building activities, an improvement in student retention could be achieved, thereby reducing the dropout rate (Naidoo, Adriansen & Madsen, 2016).

According to Practitioner C2-DS, a faculty dean, the complexity of developing and implementing an enrolment strategy is related to managing people, but her position is that once one assumes a position at a certain level in the organisation, engaging with and managing people is a given:

> *So for me part of the job is you have to convince people to do something… And it's not necessarily how they wanted to do it or what they expected. So a lot of the job is to try and anticipate what people will feel and then try and sort of, you know, explain things to them in a way that they'll be susceptible to agreeing to it and it's not an easy thing to do but it's a skill that you improve the more you are in this job…*

Her quote raises the idea, again, that people are at the centre of strategic thinking in developing and implementing enrolment strategies.

5.2.2 Organisational culture

Organisational culture is another factor that influences both the development and implementation of enrolment strategy. Table 24 shows the quotes and first-order categories that were used to develop this theme.

Table 24: Dimensions, Themes, Categories, and Data – Organisational culture

Second-order theme	First-order categories	Illustrative quotes
Organisational culture	Tensions between various sub-cultures	I think one of the reasons is academia is academia, you know, you kind of imagine these ivory towers that academics have set themselves up in, I always say you know communicating with an academic is very different… they are a different animal you know, compared to the support sector staff (T3-PI)
		…there is still a big divide between academics and administration and I do see that some academics look down on administrative staff because they feel that they are intellectually superior to them…it's not that one is more important than the other, the one can't operate without the other (T6-RI)
	Blame and shame culture	The context where accountability and individual responsibility, as opposed to direct governance is preferably the ones where you need detailed knowledge. (C2-DH)
		If something goes wrong, the one portfolio would be tempted to blame the other portfolio… It's a difficult one and sometimes I even get told I am changing their numbers. (C1-DIRP)

According to Practitioner U2-DVC, a deep-rooted challenge is: *"…in culture and perceptions and people's thinking…".* The tensions between the various sub-cultures at the university (management, academics and support staff) can be problematic. Practitioner T6-RI explained that internal politics are involved:

> *…we see a divide between what management, many of the staff say management has imposed this and we just have to make it happen. And the resentment from academics when perhaps their classes are too full, when the timetable isn't working for them, so that I also find difficult and that's the kind of human side to enrolment planning.*

Within the university, there is a natural conflict between different cultures (Sharp, 2002). Practitioner T3-PI suggested that the tensions between support and academic staff often

manifests as communication gaps. Practitioner T6-RI explained that academics could make it difficult for support staff so she acts as an intermediary:

> *I like to think that I act as a little bit of a conduit between the academic and the administrative staff. It does help with the fact that I am a senior officer bearer on the Senior Executive Team so that certainly helps and I do think the administrative staff see me as the champion of a lot of their causes, when they are unhappy, when they feel that they you know some academics or the head of school or the dean is being unreasonable they do see me as the kind of go to person.*

A tangible manifestation of the tension between sub-cultures is that academics do not necessarily understand the need for developing and implementing the enrolment strategy, thus start to feel that it is being imposed on them. According to Practitioner T7-DVC:

> *…they are academics, they don't want to do enrolment planning, they don't understand enrolment planning, they don't understand the impact of enrolment planning on its funding, they don't understand the schools as a business because that is what it becomes because what you produce and your enrolments are what you are going to be funding so the Dean as academic cannot be bothered by that.*

Many participants explained how the tensions between sub-cultures, different portfolios or even individuals appears as a culture of blame. Practitioner C1-DIRP explained how the planning office usually takes the brunt of the blame concerning both the development and implementation of enrolment strategy and are often *"in the hot seat"* as a result of a bias towards a deliberate, planned approach.

Another scenario of the blame-game occurs when there is shifting of responsibility:

> *…where things are going well, the people you supporting, often will not mention that you supported them in that particular thing going well. If for example, you get more funding… Finance will claim the credit for that but if you get less subsidy than what was estimated, then finance will say, oh but the planning office provided the figures and that is what he estimated it will be.*

According to Practitioner C2-DS, not participating in the blame-game requires making a choice and understanding that responsibility is shared:

> *It's a choice I have to make. To either make it look like they're the enemy who doesn't understand or I can try and remind people, you know the regular academics what the role of top management is. All of us have a responsibility and a role in the whole chain of events and nobody is to be blamed for anything.*

Similarly, Practitioner T2-SDP emphasised the importance of adopting a proactive purpose-oriented process of agreement to avoid the blame-game:

> *So it is important to me and the reason that is important to me is that when things do go wrong people are quick to blame and say but you said we should not do this, and you said, so right from the start we must all agree on why, not just one person.*

Thus, there was evidence of specific mechanisms at various universities, such as understanding, engagement and negotiation being used to counteract the blame-game.

An organisation's culture ultimately reflects how people perceive their circumstances in relation to the values of the organisation (Schein, 2004) and how they express their messages, whether formal or informal (Wilson, 2001). There is sometimes a disjuncture amongst managers' and employees' understanding of a culture of blame, especially if the manager holds idealistic opinions of distributing information (Collinson, 2012). As a way of protecting their own self-image, employees may divert attention away from their incorrect actions by forcing the blame on colleagues (Daniels & Robinson, 2019). Sharing blame can be difficult as well, so sharing responsibility is a way of offering some protection if things go wrong (El Zein et al., 2019). However, the disadvantage of this approach is a lack of accountability, which is a characteristic of the transformation demands placed on universities (Holstein et al., 2016).

5.3 Complexity: Trade-offs and Transitions

Thus far, I discovered that complexity in the development and implementation of enrolment strategy at the organisational level has different forms. These include managing several processes simultaneously, managing people, ensuring student inclusion and training, promoting structural integration, and performing collective decision making. Table 25 shows

the quotes and first-order categories that were used to develop the second-order theme of ‘complexity’ at the organisational level.

Table 25: Dimensions, Themes, Categories, and Data – Complexity and uncertainty

Second-order theme	First-order categories	Illustrative quotes
Complexity	Transition from intended enrolment strategy development and emergent implementation	Even though the DHET enrolment plan was a product of institutional submissions, its only when I joined University T6 in 2011 that I understood I even felt somewhat ashamed of myself, that I hadn’t understood the actual complexities of making an enrolment plan a reality because when you are at the DHET, you think of enrolment planning almost as though it is a perfect science. (C2-SDAP)
		I have a very hands-on role when the matric results come out to make sure how many offers we give out because as you know it's not all within enrolment, you know for you to get that enrolment number you have to be careful of how many offers you’ve made, how many offers you’ve accepted, the timelines that you allow for first years, the registration, seeing have we met our targets yet, no, then we need to keep registration open still you know. And in that mix you’ve got students changing their minds, changing universities so it gets quite hectic with that kind of logistical management but that I see as my responsibility. (T6-RI)
		We had conversations with the registrar about the letters that were sent out to students, applicants who had been admitted, and a new system put in place where there was a differentiation between those who were firmly admitted, conditionally admitted, and what those conditions were and those who were provisionally admitted. Because part of the over-enrolment had come about as a consequence of everyone getting an over admit status so they could not be turned away because of the admit status. Now that was a very fundamental factor that had to be changed to manage enrolment. (C2-SDP)
	Trade-offs	I anticipate this year for example and I’ll probably end up going and saying look, I want to let in more postgrads than we’ve been allowed as well, let’s do a trade with undergrads. You know they’ll be a drama about it. But at the end of the day it will be the right thing if we've got good postgrads and you're new waiting list undergrads again of course, it's better to let post-grad in. So perhaps a bit of a better connection I'm saying between strategic thinking and those sorts of decisions. (C2-DH)
		I think there are about five universities that have got that right and it’s largely because of their legacy, the newer generation universities, we

Second-order theme	First-order categories	Illustrative quotes
		don't have that. So you know first and second stream income can still be 70 – 80 per cent. So as long as that ratio does not change that tension will always be there. It will always be palpable. We won't be able to argue the case for quality, a case for saying no we're not taking in so many students and then if we cap enrolment then you're inconsistent with national policy on access. So there are so many levers that you have to balance all of this. (U2-CIO)

Practitioner C2-SDP claimed one of the main factors that impact on the complexity of the development and implementation of enrolment strategy is the admissions process, which marks the transition from enrolment strategy development to implementation. In the case that was described, over-enrolment in one year led to the university identifying a lack of control over the admission process. The planning office then assumed an advisory role and provided assistance to rectify the process for future cycles. Practitioner U1-DIRP confirmed that the institutional planning function is limited once the enrolment strategy is developed because there is only monitoring and a role of flagging any serious deviations to the appropriate structures. Others also highlighted the admissions process as being a critical process in triggering the development and implementation of an enrolment strategy and that many processes need to be actively monitored during the development and implementation stage of the enrolment strategy, including:

- Tracking the number of offers[5] made to students;
- Tracking the uptake of offers within a specific timeline;
- Establishing whether the intended enrolment strategy has been met or not;
- Deciding whether to keep the registration cycle open; and
- Responding to changes.

Admissions are thus the point at which the development and implementation of enrolment strategy begins and the process shifts from the intended, planned phase of enrolment strategy development to the emergent, phase of enrolment strategy implementation.

[5] An offer, in this case, is a letter to a student, indicating that they meet the criteria, have been accepted and given a space. The student has a specific period of time within which to register, failing which they will lose their space.

According to Practitioner C2-PF2, determining the yield on admissions is a critical step in the development and implementation of enrolment strategy because only a portion of the students who are admitted will eventually register. If too many students are admitted, then the spaces will be filled before the registration deadline, but if too few are admitted, then the intended enrolment strategy will not be achieved. The unknown factor is how many students will register and by when. The student's choice to register is therefore another variable in the equation that universities do not have any control over.

In this emergent admissions phase, active monitoring becomes a critical component. Practitioner T1-DVC clarified that active monitoring should occur in a *"…non-complex way that any non-IT person can understand"* and includes things like *"a reduction in dropout rates and improvement in throughput rates and progression of students in undergraduate and postgraduate studies"* (C2-SDP). The word 'enrolment' typically refers to the act or process of being enrolled. Enrolment management, in simple terms, would therefore refer to managing the processes through which students become enrolled at a university. Hossler (1990), however, argued that the definition 'enrolment' had assumed was too narrow and that it should include the subsequent processes of retaining students at the institution until they graduate. This more expansive view considers the entire enrolment system, comprising of enrolment, retention and graduation. I found that practitioners in my study did acknowledge enrolment, retention and graduation occasionally, but their narratives were shaped mainly around enrolment as the narrow definition related to the input of students into the university.

Finally, the trade-offs and transitions that are included in the development and implementation of enrolment strategies result in significant complexity. In particular, complexity tends to be characteristic of the current input-focused process that occurs in SA that inadvertently encourages institutions to emphasise the enrolment of students without extending the same emphasis throughout the student lifecycle in terms of retention and graduation.

5.4 Conclusion

In terms of the second level, the organisation, I found that two key aggregate dimensions influence the development and implementation of enrolment strategy, namely polemic trade-offs and organisational dynamics.

With polemic trade-offs, the main trade-off or balancing of decisions is between access and student success, with the understanding that a decision regarding either one has an impact on the other. There are several priorities that need to be balanced in this way. Flexibility in how one makes the trade-off is important as well, and there is evidence of both an adaptive and crisis mode when making trade-offs. There is a trade-off when an organisation decides whether to set a realistic or ambitious enrolment strategy. Resource allocation and proactive training are mechanisms that can assist in setting a realistic enrolment strategy. Institutional identity is one of the priorities that a university needs to be clear about in order to conduct meaningful enrolment planning. Trade-offs involve both evidence-based and ethical decisions. In order to decide on and ease the consequences of the trade-offs that are made, the development of a shared mental model is needed.

Another aggregate dimension that has a bearing at the organisation level is organisational structure and culture. The development and implementation of enrolment strategy are diffuse functions across the university and fragments tend to be located in silos. Lastly, the uncertainty and emotions in the development and implementation of enrolment strategy cause complexity. Typically, universities form integrated structures such as committees to manage the enrolment strategy's development and implementation. It is vital to involve students in these committees. Organisational culture has a bearing as well and there are tensions between the various sub-cultures at the university. It is typical to notice a culture of blame and shame in the development and implementation of enrolment strategies that requires making a conscious choice and understanding that responsibility is shared.

Finally, the trade-offs and transitions that are included in the development and implementation of enrolment strategy result in significant complexity. In particular, complexity tends to be characteristic of the current input-focused process that occurs in SA that inadvertently encourages institutions to emphasise the enrolment of students without extending the same emphasis throughout the student lifecycle in terms of retention and graduation.

6 Findings: Part 3 – National

In this third and final part of the data analysis, I discuss the national level that comprises of two aggregated dimensions, namely, chronicity and political instability. Below I present the findings and, as in the previous section, I intertwine the findings and literature discussion to enrich the findings.

6.1 Chronicity

There are challenges with national processes and the schooling system as well as differentiation debates, which influence both the development and implementation of enrolment strategy. I have used the term 'chronicity' to express a persistent state. Table 26 shows the quotes and first-order categories that were used to develop this theme.

Table 26: Dimensions, Themes, Categories, and Data Problems experienced by universities

Second-order theme	First-order category	Illustrative quotes
Chronicity	National processes and schooling system	We can plan to have so many students but from Matric for example they are not getting good marks to come. (U2-DS)
		Our biggest problem I think when it comes to students in the SET field is the fact that the high schools do not prepare the students for what we are expecting. (C2-DS)
		Then we also have the huge disappointment that people will go into high school teaching feels when they realised what the salary is going to be. So for the kind of pressure we are expecting them to deal with for the salary they have to do this for, it's very very difficult to get them to be enthusiastic and energised by it. (C2-DS)
	Differentiation debates	…certainly in these conversations that the department's being having now with the universities, the department is not debating differentiation any longer. It is taking differentiation as a given. But just in terms of the whole HEQSF (Higher Education Qualifications Sub-Framework) alignment process, I mean the traditional universities hardly had to do anything U1-DIRP
		Not everyone is in the fortunate position of having medical school and a medical school that is how old you know so it does change the picture… (C2-DIRD)

Second-order theme	First-order category	Illustrative quotes
		It is not something that is valid for all institutions. I mean, I know that the vast majority of money from some universities comes from alumni, and I know that the vast majority of income at others comes from research from contractors and donors and things like that, so they are not as dependent on their enrolment plan to make sure that they get enough money. But most of us, the rest of us, do not have that. We all get our largest portion of money from our subsidy. (T2-SDP)

The two problems that were highlighted as problematic were the National Student Financial Aid Scheme (NSFAS) and challenges with the schooling system. As Practitioner C2-PF2 explained, the NSFAS process presents significant risks to the enrolment strategy's development and implementation, primarily because of the lack of consultation when the decision by the national level to provide one billion rand towards financial aid was made. Practitioners T1-DVC and C2-PF2 suggested that the funding administration and allocation processes be improved so that there is a clear application and processing period during which time students are assisted in submitting complete applications. Nevertheless, Practitioner U1-DIRP described the critical importance of the funding:

> *…if this national financial aid scheme can just get its act together and do what it's supposed to be doing then I think the broader base of students coming in, if they can just get their administration sorted out and provide funds to students and there is a whole cohort of working-class and poor students who wouldn't have had the opportunity previously so I think there are some very good things, the greater funding on infrastructure is good.*

In terms of funding, there are numerous challenges that, if left unchecked, could cause serious consequences (Wangenge-Ouma & Cloete, 2008; Mutekwe, 2017). Cloete (2016) argues that the proportion of funding allocated by government to universities increased by only 0.04% over 11 years from 2005 to 2016, despite much higher levels of inflationary costs, which does not compare well internationally and in the continent. Nevertheless, perhaps the most contested area between government and universities is the approach that was taken when students took action and government responded by announcing a zero fee increase and subsequently, that the national funding scheme would receive the funding to disburse directly to students.

A central challenge to funding via the NSFAS is the administration of the applications, selections, allocation and reclaiming of funding. The challenges are related to allowances, communication and misalignment of processes (Muthwa, 2019). These challenges led to the resignation of both the CEO and chairperson of the scheme after allegations of maladministration were raised. The allocation of allowances directly to students who have little or no financial management skills has been challenged as a poor decision. Students have had to resort to living on the streets and allegedly turn to prostitution. It has been reported that there are inconsistencies in the pattern of and delays in allocations, and rejection of applications without any reasons being provided. Universities are impacted by these processes because the majority of first-generation[6] students depend on funding.

Arguably, it is the national context that presents universities with the greatest reason for utilising strategic thinking in the development and implementation of an enrolment strategy. As Practitioner T2-SDP explained, the implications of connecting the enrolment strategy's development and implementation to funding:

> *…enrolment planning…has to stop being a tool for financial sustainability because it is not going to work. I mean, in the long-term the government is not going to get more money, the students are not going to get more money to pay tuition fees, there is not going to be more national financial aid scheme, so enrolment planning cannot be the key tool for financial stability. It is not going to - it is not sustainable.*

The main challenges that practitioners highlighted concerning the school system included:

- Students are advised incorrectly and do not apply on time;
- Poor matric results, especially in maths and science, and not getting into their first choice;
- Lack of preparation for university;
- Lack of teachers, and they are underpaid and not coping; and
- Teachers do not qualify for what they want to teach and are then possibly placed according to school need, not training.

[6] These are students who are the first person in their family to attend an organisation of HE.

Practitioners felt that the universities inherit many of the problems from the schooling system. According to Jansen (2018:3), there is a "systemic crisis in our schools". An example is the results of the 2019 Grade 12 cohort; while government celebrated the 3.1% national pass rate increase (to 81.3%), others bemoaned that the results were owing to lowering of academic standards to meet specific targets (Jansen, 2018).

Many of the above-listed problems have forced universities into an adaptive mode in the development and implementation of enrolment strategy by intensifying support from the application phase through to graduation for students who are entering universities for the first time. These activities led to some improvement but low completion times and outputs have characterised the development and implementation of enrolment strategy systems over the last two decades (CHE, 2016a).

There is evidence of differentiation in relation to several factors, including structures technology, processes (C2-DIRD), skills (T7-DVC), entrance criteria (T4-DIRP), throughput (T4-DIRP), impact of national decisions (T1-DIRP), maturity (T6-PI), purpose (U2-DVC), reputation (C2-SDP), strategy (T6-PI) and data sophistication (T6-DIRBI). In contrast, there is also evidence of homogeneity in relation to the PQM and decision making. There is also a lack of differentiation in a few ways, including problems faced, PQM drift, and competing for the same students (U2-DS). Practitioner U1-DIRP felt that the issue of differentiation is a given, but the epicentre of differentiation should be based on purpose. The more pressing issue for the national level is holistic or integrated planning:

> *…when I reflect on the meetings that the department is having again at the moment, apart from their acceptance of differentiation, the Department is pushing a notion of…holistic planning or integrated planning…which primarily means, are these numbers that you are proposing can they be near met by the resources that you have at your disposal.*

Jansen (2018) argues that over the years, the differentiation has manifested by itself with three distinct categories of universities – top, middle and bottom. Those in the top category are generally the historically advantaged, previously white-only universities, those in the bottom category are those in the historically disadvantaged, previously black-only universities. It appears that reality rather than rhetoric is emerging in the latest narrative at national level. The

case for differentiation has been debated robustly over the last two decades and, while many argue that differentiation should occur, the approach to adopt is still an issue of contestation. The extant literature does indicate that differentiation should be the mission, offering types and purpose rather than institutional typologies (Gibbon, 2014; CHE, 2016).

6.2 Political Instability

Sensitivity to the national landscape and relevant policies is a factor that influences both the development and implementation of enrolment strategy. The quotes and first-order categories linked to the differentiation are shown in Table 27.

Table 27: Dimensions, Themes, Categories, and Data – Political instability

Second-order theme	First-order category	Illustrative quotes
Political instability	Challenges related to national level	People were giving you mixed messages. People were telling you things like, enrol this list of students, contrary… I don't even know if the department knows whether it (increase in National Financial Aid Scheme funding) is sustainable. (C2-SDAP)
		The idea of size and shape emerged from the NCHE...which was a very fascinating exercise because some of it was wrong… Had those targets be more realistic we could have allocated resources, perhaps a little more realistic within the university sector and then made those targets. (T4-DIRP)
	Political agendas	They don't care because politically they decided this is what we want. (C2-DS)
		I think because it's not driven by rationality, it's driven by ideology and it's driven by politics. I mean this whole free education, the way it has been done, I think it was a political decision. (T1-DVC)

Practitioners felt there were two main components related to universities and the national landscape. The one was poor communication from the national level that at times led to mixed messages and a lack of faith in the capacity, knowledge and realism of the department (T4-DIRP, T7-DVC). Practitioner T7-PI explained how the national level is not the policy-maker but the implementer of the policy:

> *Because those specific targets that I was mentioning now were signed off between the President and our Minister at that stage and then it filters down and then you become not the policy-maker, you are the implementer as an intermediate then and you write this Ministerial statement which is supposed to feed into this whole bigger thing of creating those graduates, planning for the system…*

She also explained that from a national level, although enrolment planning is core to the sustainability of universities, there are *"thousands of other issues that are dealt with"* and enrolment planning *"is one element".* Simply put, from a national perspective, there is a lack of concentrated attention and capacity for the development and implementation of an enrolment strategy, which is interesting as there is an enrolment planning unit at the national level.

The political landscape is presenting unfavourable conditions, as Practitioner C2-DS explained:

> *…so politics unfortunately in South Africa seems to be the guiding light. It's that decisions are not being made for the benefit of the people. The politicians decide what they feel is to the benefit of the people and they might make their decision thinking nationally but where they are implementing in the local environment that wasn't the right decision. They don't care because politically they decided this is what we want.*

In the same vein, Practitioner U2-DVC expressed concern that the political situation could destabilise the development and implementation of enrolment strategy:

> *You know we want to have what I call a stable system wherein we know with this type of leadership South Africa will not be the same again but now the type of politics… It is not doing any good for our country that worried me but I mustn't go too far because sometimes you know this thing can derail you from the projects that you want to because these things will always be there. That's what now I consoled myself. I can't run away from it, we must live with it, do what we can do best under the circumstances.*

Arguably, the greatest political problem was that the expansion was not met with increases in government funding. In 2011, the SA university budget deployed by government represented

0.75% of the Gross Domestic Product (GDP), while in the 2015/16 budgetary cycle this decreased to 0.72% of the GDP (DHET, 2015). This decrease in government funding gave rise to increasing tuition fees (Cloete, 2016; USAF, 2016). The proportion of government funding at public universities decreased by approximately 9% between 2000 and 2010, with nearly a 7% increase in tuition fees (FFC, 2012; PWC, 2016). Cloete (2014) raises concerns about government investment in HE, stating that it did not produce the outcomes necessary to sustain required economic growth. In addition, policy implementation gaps and subsidy allocation delays amplified the difficulties (Menon, 2014). To borrow a phrase from the DOE (2001:6)(N Cloete, 2002), institutions were caught in an "implementation vacuum". On the other hand, institutions were criticised for resource inefficiency (Menon, 2014). It is of interest to note that government underfunding and escalating tuition fees are global trends and not unique to HE in SA (Calitz & Fourie, 2016).

A considerable challenge related to funding is the high demand for financial aid, which the NSFAS was unable to meet (DHET, 2014). Financial constraints impeded institutions' ability to facilitate access via financial aid and incentives. Even with financial aid, poor students are still vulnerable, as they may need to support their families (Lewin & Mawoyo, 2014). Additionally, growing student debt continued to be a looming risk. By 2009, student debt was R3 billion, and on the rise (HESA, 2011). The delivery of student success support interventions such as bridging, foundation[7], tutoring, or academic advising programmes are similarly constrained by funding limitations. The pressure caused by the lack of funding while enrolments expanded significantly, resulted in increasing tuition fees. The mounting strain erupted with the rise of the FMF movement towards the latter part of 2015. The SA public university landscape was faced with a historical turning point in the post-apartheid SA. The focus of university transformation up to this point was to develop a co-ordinated system that enabled increased access and participation, particularly in terms of social class, race and gender participation. However, the rise of the FMF movement in the latter part of 2015 forcefully demanded that funding challenges faced by students be addressed through systemic changes to funding provided to students.

[7] In South Africa, the term 'foundation programme' is used to describe a study programme that is taken over an extended period, with additional support provided to students (Garraway, 2010).

Students were demanding free HE for the poor, and government relented by agreeing to a freeze on tuition fee increases for 2016 as well as the insourcing of previously outsourced cleaning and security workers (Ndelu et al., 2017). The entire university system was placed under the severe strain of radical change. Consequences included disruption of academic activities and volatility at many universities, violent clashes between students and security staff and, at times, destruction of major infrastructure such as lecture halls (Hodes, 2016; Mutekwe, 2017; Ndelu et al., 2017).

6.3 Complexity: Uncertainty and Chronic Instability

A feature at the national level that results in an unrelenting combination of unintended consequences is chronic instability. As such, universities are destabilised by the unpredictability, lack of clear communication and lack of integrated support at the national level.

It is argued that governmental actions through the formulation of policies relevant to HE has an impact on HE organisations. While the formation of policies is easy, it is in the implementation where many policies fail (Gornitzka, 1999). The political instability in SA therefore creates a difficult landscape that is charged with uncertainty that significantly impacts on enrolment strategy development and implementation. Practitioner U2-CIO summed up the numerous uncertainties in the national context:

> *There's uncertainty about the policy environment. There's uncertainty about the funding space. There's uncertainty about the role universities will play in the post-secondary space. Whether or not funding will be diverted from universities to grow TVET (Technical and Vocational Education and Training) colleges, which should happen. So there's a great deal of uncertainty in the national policy and that makes me very worried because we are planning for the next six years in this uncertain space.*

The FMF movement that began in 2015 injected significant complexity into the development and implementation of enrolment strategy. Universities faced some of the most radical changes in post-apartheid SA with devastating social effects that continue to torment universities. The unparalleled uncertainty at universities in SA is marked by tighter budgetary constraints than previously experienced. Government is unable to provide the capital injection required by

institutions. Tuition fees have not increased significantly since 2016, and some caution that this presents an untenable situation for universities. Institutional austerity measures are demanded. It is a revolutionary time in which institutions will need to do some reflection. The student protests are seen to be related to larger societal and political issues regarding racism, free education and equality (Msila, 2016). Political instability and resultant adverse effects on the exchange rate have further exacerbated the weakening of the SA HE system. Arguably, at this time of radical change, it has never before been more critical for SA universities to identify alternative management models. As Cowburn (2005) suggests, once the power dynamic changes, an institution's strategic intent becomes vital to institutional survival.

6.4 Conclusion

In terms of the national context, the most significant challenges that universities face are the chronic problems at the national level concerning funding and the schooling system. Universities have had to adapt to the shortcomings of the schooling system by implementing several interventions that provide support to first-generation students, in particular. While there is some degree of homogeneity in the PQM and other processes, a differentiated system emerged of its own accord. Universities feel that there is a lack of clear communication and focused attention from the national department. Lastly, the political landscape presents highly unfavourable conditions that have the potential to completely destabilise the development and implementation of enrolment strategy.

The demands from students for free HE for the poor, government relenting to the demands by agreeing to a freeze tuition fee increases for 2016, and the provision of funding grants for the poor introduced a radical change that was met with volatility and disruption at many universities. Finally, the chronicity and political instability in the SA public university landscape is perhaps the greatest factor in jeopardising the future of enrolment strategies' development and implementation.

7 Synthesis of the Parts, Concluding Remarks and Contributions

7.1 Introduction

In this section, the goal is to synthesise the key features of the three parts of the data analysis into a whole. I do this by providing a research overview in which I restate the original objectives in the form of the research questions and show how I have addressed each objective. Thereafter, I present a model of a holistic strategic thinking perspective that I developed from the findings. The model comprises of a multi-level infrastructure of realities and the shifts that a person needs to make to achieve the holistic strategic thinking perspective. In the sections that follow, the components of the model will be expanded upon. In addition, this chapter explains the theoretical and practical implications, limitations of the research and directions for future research.

7.2 Research Overview

Strategic thinking is a concept that typically drives a performance-based culture, and the viability of organisations is contemplated to be dependent on strategic thinking. However, strategic thinking is often simultaneously identified as lacking in several organisations. This study sought to develop a holistic strategic thinking perspective that reaches beyond conventional modelling.

The research context chosen was public universities in post-apartheid SA. Public universities underwent numerous enrolment transformations and experienced various challenges, most notably, poor throughput and varied student success. Moreover, in recent times, student protests emerge whenever students feel dissatisfied. In this landscape and under these circumstances, strategic action is theorised as being vital to institutional survival and the context chosen was deemed suitable for the main research question underlying this study, namely: **What holistic strategic thinking perspective can enhance enrolment strategy at universities?**

I used a qualitative, empirical study, to explore the individual strategic thinker, who is viewed in an integrated manner, including their behaviour, attitudes and emotions. A total of 33 semi-structured interviews were conducted with individuals who work in the areas of developing and implementing enrolment strategy at SA public universities. The interview data were captured, coded and analysed using a combination of NVivo software and manual thematic

analysis. In using the classical technique of moving from the data towards more abstract, empirically grounded concepts, I make a more general contribution to the academic debate regarding strategic thinking that goes beyond the practical and contextual contribution of my study.

Thus, my contribution is not limited to strategic thinking in the development and implementation of enrolment strategy but reaches out to strategic thinking in general in organisations.

In Table 28, I restate the three objectives used to answer the main research question.

Table 28: Research objectives and summarised findings

Objectives	Findings
1. Understand how strategic thinking is utilised in the development and implementation of enrolment strategy.	The findings show that there is a distinct flow from development into implementation in enrolment strategy and that the strategy context is shaped by three levels - the individual, organisation and national.
2. Identify the common issues faced by individuals who perform strategic thinking in the development and implementation of enrolment strategy.	The key barriers comprise of the binary realities at each level, which results in an overarching complexity and ubiquitous emergent behaviour in the development and implementation of enrolment strategy that is largely not understood.
3. Establish the key components of a holistic strategic thinking perspective that can enhance the development and implementation of enrolment strategy at universities.	The model shown in Figure 17 illustrates the multi-level model of holistic strategic thinking that has been generated from the findings.

A model was developed from the findings, which highlights the holistic strategic thinking perspective, as shown in Figure 17.

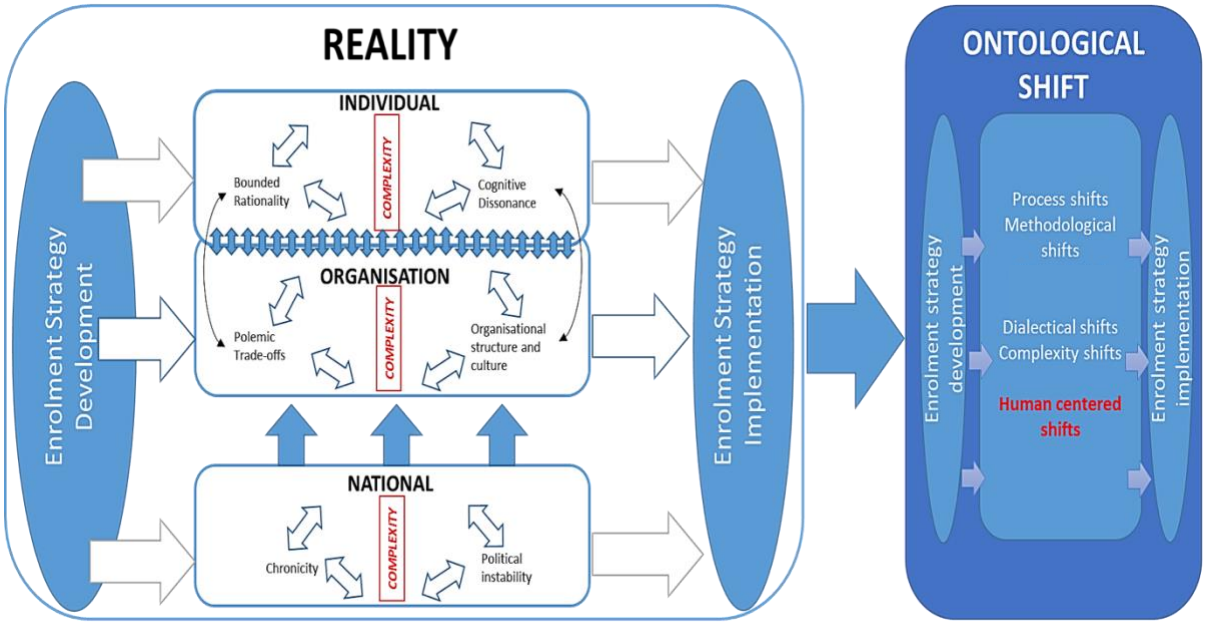


Figure 17: Model – Holistic strategic thinking perspective

As depicted in the model, there is a distinct flow from enrolment strategy development into implementation, and the strategy context or reality is a multi-level infrastructure comprising of the individual, organisation and national levels. Situated at each level are three corresponding binary realities: bounded rationality and cognitive dissonance (individual level); polemic trade-offs and organisational structure and culture (organisational level); political instability and chronicity (national level). Finally, an overarching complexity with ubiquitous emergent behaviour that is mostly not understood by individuals cuts across all these levels. Consequently, the individual who is performing strategic thinking needs to re-orientate themselves via a number of ontological shifts, accomplished through processes, methodological, dialectical and complexity shifts.

Next, I provide a detailed description of the contributions of this study.

7.3 Theoretical and Practical Contributions

My original proposition was that my findings would reveal a need to focus on understanding and the application of systems thinking in strategic thinking. In that sense, I had a desire to investigate a holistic perspective of strategic thinking. Furthermore, I considered the fact that enrolment strategy development in South Africa was a technical, numbers-based exercise. Prior

to engaging with the study data, my vision and value were shaped considerably by what I viewed as a perceived lack of holistic or systems thinking in strategic thinking as a negative implication for the enrolment system. However, as I navigated through the various stages of the data analysis, I realised that there were a number of far more complex connections that created a nuanced representation beyond a limited focus on systems thinking. In other words, my own vision expanded from a limited to a broader perspective, along with my own personal awareness regarding the application of systems thinking in strategic thinking. Although I still view the significance of systems thinking in strategic thinking as a compelling dimension, I understand the complexity of the interactions and connections as a dimension that requires nuanced attention.

Academic debate and theoretical development in the field of strategic thinking research have, so far, not paid enough attention to the concepts of bounded rationality and cognitive dissonance at the individual level. Moreover, there is a deficiency of literature that considers the impact of emotions on strategic thinking. Similarly, there is a shortage of studies that simultaneously consider the organisational and national levels, which positions strategic thinking from a complexity perspective. Generally, strategic thinking research tends to adopt a narrow lens rather than a multi-level perspective that generates complexity.

My research shows that at the individual level, bounded rationality, cognitive dissonance and emotions have a significant effect on strategic thinking. Both bounded rationality and cognitive dissonance are fundamental social science concepts. However, it appears that the dominant conceptualisation of strategic thinking research is that of actors as exceedingly rational and thus, except for a handful of studies, the aforementioned concepts have been widely ignored. It is imperative to establish a reasonable, more balanced position that takes the limitations of individuals and how they respond from an emotional point of view into consideration. In addition, the effects of the individual that are extended to the organisational and national levels are significant, as is the dynamic movement from strategy development to strategy implementation.

My study further shows that ontological shifts are required to re-orientate to the effects of limitations and emotions on strategic thinking. I therefore suggest that further conceptual development and empirical research in strategic thinking research should pay attention to these

concepts to establish a more holistic perspective of strategic thinking. Ultimately, the shift involves an overall shift in a person's mindset towards being more conscious of their own and others' limitations, along with the impact of the other levels on the development and implementation of enrolment strategy.

The first key construct is complexity, which occurs at every level, and I discuss this topic next.

7.3.1 Complexity

According to Cilliers (1998), there are characteristics that differentiate a complex system from a simple system. When strategic thinking studies do not use a complexity perspective, the ontological ideas are based on simple, often reductionist assumptions that causality between decisions and consequences are linear, thus, neglecting instabilities that give rise to creativity and innovation (Nel, 2016). I have discovered that awareness of complexity is essential in the dynamic movement from the development to the implementation of enrolment strategy. Neglecting a complexity perspective results in the theory on strategic thinking being narrow and overly rational.

The complexity manifests from the interactions between the multi-level infrastructure depicted in Figure 17, and is revealed within the system itself. Diverse connections and cycles of feedback are formed. These cycles of feedback loop back into the system, forming continuous cycles of complexity. There are, at times, erratic patterns too, as confirmed by Stacey (1995) who argues that research on organisations needs to establish, if possible, the patterns of and reasons for the erratic behaviour. A multitude of variables emerges, often simultaneously. Complexity destabilises the system because it is difficult to identify any pattern of causality. My study suggests that complexity cuts through each level or perspective of the holistic strategic thinking infrastructure, namely, individual, organisational and national. Thus, complexity is presented as a coupling feature of the model that, in one sense, connects each level.

My study further shows that a main feature in the complexity of developing and implementing an enrolment strategy system is emergence. According to various studies, emerging elements manifest as social pressures, time pressures, micro-level politics and disparities in power, which have a bearing on outcomes (see Becu et al., 2008; Tschakert, Jyoti, Shrestha, Machado,

Lamadrid & Buragohain, 2016). Other emerging elements are intangible, such as unrealistic expectations at the national level, a lack of understanding of the seriousness and complexity in the development and implementation of enrolment strategy, and pressures that are felt by the practitioners.

Another feature of emergence that I found is that there is a variation based on whether the emergence occurs vertically or horizontally. Vertical variation occurs in relation to the levels – national, organisational and individual. A metaphor that illustrates the complexity associated with the vertical emergence is one proposed by Foccault (1977) of a panoptican. Although originally utilised in a prison setting to describe the governmental technology that enforces power through a punitive culture, here the idea of a panoptical view relates to the vertical surveillance or steering of universities by the national level. The national level's scrutiny of the development and implementation of enrolment strategy at the universities is arguably one of the most complex influences that universities must grapple with as it restricts the autonomy of universities, causing universities to be limited in how current and future aspirations are conceptualised. This is expressed by various vice-chancellors at public universities (see Bozzoli, 2015; Habib, 2016; Jansen, 2018).

Horizontal differentiation is related to neighbouring national departments, organisations and individuals that develop a tendency for a parochial view within structural silos. Complexity arises when there is a blockage in the flow of information. I have found that an intervention that can assist in managing this complexity is to form integrative structures for information sharing. Although universities have several committees that consider decisions for the university, establishing special structures with the primary purpose of information sharing can help to expand the parochial view into a broader view.

My study further illustrates the fact that polemic trade-offs at organisational level result in significant complexity. An example of a polemic trade-off that SA universities have assimilated is the input bias in the new funding framework. Figure 18 depicts the simplistic and limited funnel approach currently evident at SA public universities. This approach tends to focus primarily on admitting and registering students.

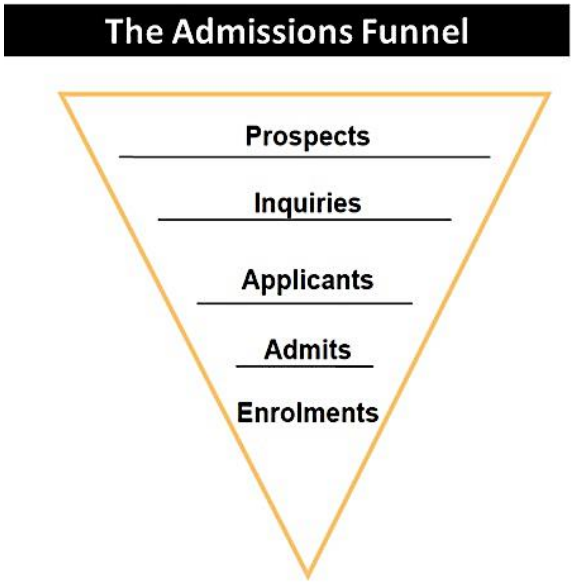


Figure 18: The enrolment funnel approach (Bischoff, 2007:1)

The front-end or input focus could inadvertently encourage institutions to emphasise students' enrolment without extending the same emphasis throughout the students' lifecycle in terms of retention and graduation. There is evidence that the weighted government subsidy for input acts as a perverse incentive (Menon, 2016; Cloete, 2014b). A balance between recruitment, retention and graduation is required (Taylor et al., 2008) so that student success becomes embedded as a core principle (Bischoff, 2007a). Universities in SA could create the balance by moving from an enrolment funnel approach to an enrolment pyramid approach, depicted in Figure 19. This more sophisticated model is built on the premise of improving communication to build relationships with students throughout the processes of admissions, retention and graduation.

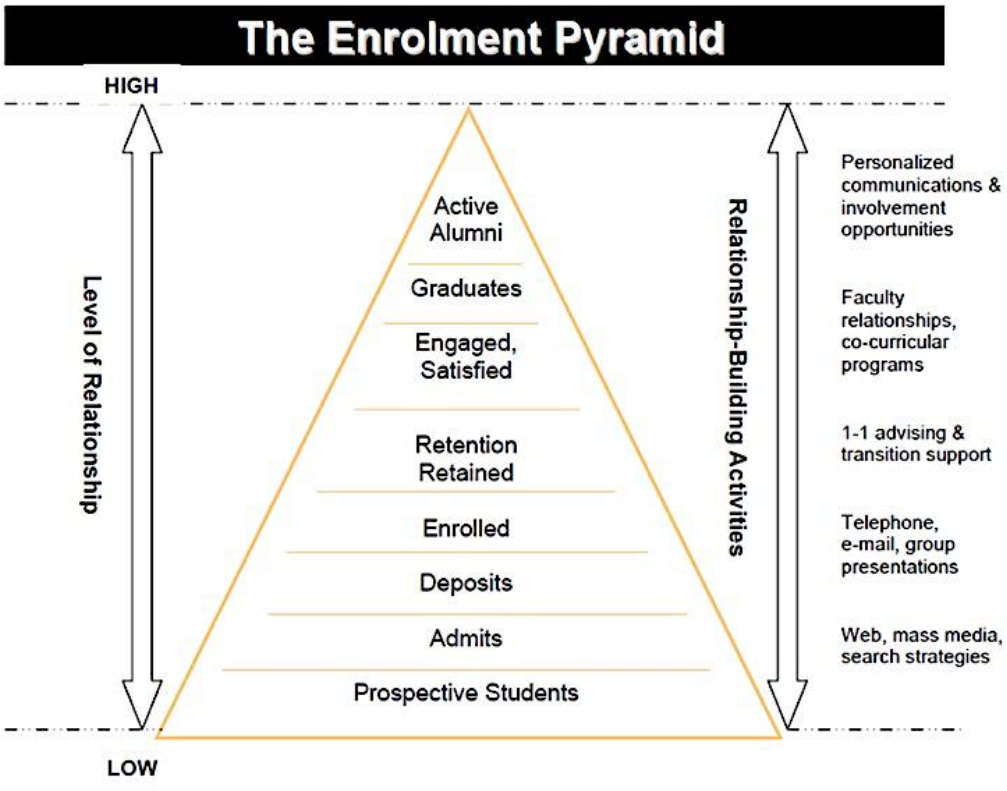


Figure 19: The enrolment pyramid approach (Bischoff, 2007:2)

In conclusion, I have found that complexity in the development and implementation of enrolment strategy cannot be fully understood. Flood (1999:3) illustrates the temperament that is required to deal with this paradox of complexity:

- We will not struggle to manage over things – we will manage within the unmanageable.
- We will not battle to organise the totality – we will organise within the unorganisable.
- We will not simply know things – but we will know of the unknowable.

Next, I discuss the three levels (individual, organisation and national) found in the model of holistic strategic thinking.

7.3.2 Impact of perspectives

Individual level

Individuals are bounded in their thinking by their own physical and mental limitations, their circumstances, their roles, their understanding, their personal interests, values, feelings, their skills and experience, their willingness to trust and build relationships, their leadership style and their ability to adjust to changes in leadership. In other words, they are bound by their own cognitive limitations, perspective and inner world. There is a tight connection between the individual and the organisation, and bounded rationality perpetuates itself in organisations, which are essentially a collective of individuals. Thus, structures, culture, leadership and the decisions that are made are also bound.

Bounded rationality emerged as an important factor in my study. Many strategic thinking studies may be neglecting actors' bounded rationality because in the strategic thinking literature, it often appears as if strategic thinking is undertaken by superhuman powers, that are omniscient and faultless. This view is emphasised by Freedman (2013:237) who argues that:

> …the 'master strategist,' who is able to foresee the future and execute a planned strategic victory, is a myth. The best a strategist can do is identify ways to improve the group's position in relation to environmental objectives, step by step, rather than through a pre-determined sequence of moves.

My study has found that the descriptions of strategic thinking as an extraordinary, superhuman ability can be misleading because it does not reflect the fact that strategic thinkers have limitations at any point in time. They can have good days and bad days, they can get sick, experience loss and feel sad, be ageing or afflicted by personal difficulties.

Moreover, my study confirmed what De Wit et al. (1998) argue – that strategists are not omniscient and that they can make errors because they have limitations in terms of their thinking and available information. Making mistakes emerged as a paradoxical factor. While mistakes are viewed in a negative way in a planning mode, an innovative mode promotes mistakes as a learning technology. Both modes are evident, so there is a need to understand and manage this paradox. Indeed, one of the most relevant and important nuanced definitions of strategic thinking relates to how strategic thinking involves "…the art of balancing tensions

and that multiple strategists' subjectivities within a paradox lens on strategy may in fact co-exist" (Dameron & Torset, 2014:291). Similarly, I have found that Casey and Goldman's (2010) model of strategic thinking as an individual skill that is learnt and requires practice, offers a pragmatic, and arguably more realistic, human-centred view.

My study further emphasises the close connection between the individual and the organisation. Although seldom acknowledged, there is no clear boundary between the individual and the organisation (Chatman, Bell & Staw, 2015). Indeed, Herbert (1991:125) argues that one cannot separate the individual and the organisation in terms of knowledge because "…an organisation learns in only two ways: (a) by the learning of its members, or (b) by ingesting new members who have knowledge the organisation didn't previously have". Consequently, there are organisations that have limitations or are bounded based on information, resources and time (Hoffrage & Reimer, 2004). It is vital to bear in mind that individuals too make up the national context. Thus, the concept of bounded rationality, though situated at the individual level, extends into the organisational and national levels. For instance, national imperatives also bind an individual's way of thinking. My findings suggest that individuals at universities are adopting similar strategies to each other in order to increase their funding in line with national policies and processes. The manner in which the subsidy funding is calculated inhibits creative and innovative strategies in the development and implementation of enrolment strategy.

Another key construct that emerged in my study and also appears to be neglected in strategic thinking studies is cognitive dissonance. Cognitive dissonance manifests when those involved encounter attitudes in contrast to their own views. The two main views are a technical and data-driven view, and a systems view. The dissonance is curbed by finding ways to employ both a narrow, mechanistic, detailed, convergent, causal, predictive thinking along with a wider, systems perspective, divergent, effectual, adaptive thinking. Although the latter is critical, without the former, the action-oriented component of strategic thinking will be lacking. The latter, big picture thinking requires conscious, impartial elevation to transcend and detach to a level of observation and reflection of the detail.

Moreover, a further aspect of the complexity related to the individual level is how a person responds to the dissonance. Strategic thinking means being able to be conscious of conflicting positions and utilising personal capabilities while simultaneously connecting emergent opportunities (Yorks & Nicolaides, 2012). Complexity can, in response to the uncertainty, trigger feelings of vulnerability, pressure and powerlessness in individuals. Though there are

positive feelings when engaging in the development and implementation of enrolment strategy, I have found that fear and anxiety are predominant. My study suggests that cognitive dissonance, bounded rationality and complexity, mutate into a widespread culture of blame. Moreover, practical interventions are required to obfuscate the blame.

The different sub-cultures at the university present another critical form of dissension. There is a situatedness that triggers the thinking of academics, support staff and top management that results in each holding a dissimilar view of the organisation. Again, integrated structures that include all the sub-cultures could ease some of the tensions.

In my study, I extend the emerging literature by probing the role of emotions in strategic thinking. My analysis suggests that there is a multifaceted combination of emotions that can potentially affect the development and implementation of enrolment strategy. When people panic and overreact, it causes stress and overcompensation. In other words, if people are unable to regulate their emotions, they are bound by their emotions. Emotionally loaded reactions act as a stimulus that triggers responses in others. For instance, I have found that if university management place urgency and pressure on a faculty to achieve the intended enrolment strategy in the form of a target, the faculty then puts in interventions to achieve the enrolment strategy. However, while the same result can be achieved, if university management overreacts, the faculties panic and feel anxious in the process. In other words, the manner in which individuals react can either complicate or simplify the situation. If their emotions are unregulated, they could potentially put others into anxiety and fear. Understanding that strategic thinking involves repetitive and iterative cycles of being conscious and unconscious is vital to remaining composed (Yorks & Nicolaides, 2012; Moon & Ruona, 2015).

My study contributes to extending emotions as an integral part of an individual. This is significant amidst concerns that research on behaviours associated with strategic thinking lacks an effective approach; more specifically, that there is an absence of empathy (Natale & Sora, 2010) because organisations are considered to be “human entities” in terms of behaviour and decision making (Ashkanasy & Humphrey, 2017:175). Huy (2012) argues that although there is growth in strategy research related to emotions, the challenge is now to elucidate on cooperative outcomes for the organisation as a result of individual emotion.

Cognitive limitations at the individual level could mean that there will be problems when generating strategies at the organisational level that will manifest when the assumptions and arguments, problem definitions and solutions that are debated within the organisation become significant (De Wit et al., 1998). In other words, it is the conversations within an organisation that are key to strategic thinking. Strategic thinking can thus also be viewed as an organisational activity rather than solely an individual activity, and in the next sub-section, I discuss the organisational level.

Organisation

At the organisational level, I found that there were two fundamental constructs, namely, polemic trade-offs and organisational dynamics (structure and culture). Trade-offs are the various priorities at the various levels that organisations need to align when making decisions. These are described as polemic because, although enrolment decisions may appear inconsequential, these decisions affect the size, shape and trajectory of the organisation. Moreover, several polemic trade-offs are embedded in the development and implementation of enrolment strategy.

South African universities face the difficult trade-off between access and success as a result of an input bias subsidy framework. Both evidence and ethics are involved in making such trade-offs. Boundary setting becomes important when multiple views are involved (Reynolds, 2014) in order to make the impact of decisions on stakeholders visible (van Gigch, 2006). Some trade-offs are at a lower level, such as the approaches that are taken when managing admissions, for example. Regardless, trade-offs have a bearing on the organisation as they can have a polarising effect if those who do not support the outcome, raise an objection. Dissonance is therefore embedded as a part of trade-offs. Thus, trade-offs require careful consideration, balancing and engagement.

Ultimately, the central trade-off in developing and implementing enrolment strategy is made when it is decided to adjust the plan in response to the realities that emerge each year. In my study, I found evidence of a narrow, mechanistic view of the development and implementation of enrolment strategy that overemphasises enrolment strategy development over enrolment strategy implementation. This situation is similar to the over-emphasis of strategic planning over strategic thinking that is extensively discussed in the literature (Mintzberg, 1994). The

enrolment strategy implementation phase is pragmatic and involves focused effort, while the enrolment strategy development phase incorporates planning and aspirations, thus resulting in different thinking and emotional states for each (Tawse, Patrick & Vera, 2019). The latter is associated with an intended mindset and is thus a theoretical projection of enrolment ambitions. On the other hand, the former is more stressful as it involves taking actions that are subjected to the dichotomies of performance outcomes. Tawse et al. (2019) argue that as the process transitions from one to another, there is a need to close the gap between these two mindsets, and nudges can be used to effect the transition. They suggest the nudges found in Table 29. Utilising these cues can improve the movement from enrolment strategy development to implementation.

Table 29: Nudges to improve strategy development into implementation

	Name	Nudge	Impact
Nudges that improve willpower to implement			
1	Remove the distraction to plan	Arrange implementation meetings that exclude discussion of strategy formulation	Improve willpower by removing the temptation to plan
2	Develop implementation intentions	Perform if/then scenario exercises	Improve willpower by preparing the mind to resist future distractions from implementation
3	Use verbal framing	Say “we do” instead of “we can do”	Strengthen willpower by creating an implementation mindset
Nudges that reduce desirability to plan			
4	Highlight the end game	Inspire through motivational vision and mission statements	Increase the desire to implement through the intrinsic reward of achievement
5	Leverage a crisis	Budge individuals into a state of negative affect.	Decrease the desire to plan by creating a sense of urgency, where immediate action is required.
6	Celebrate small wins	Extrinsic goals motivate initiation.	Tight deadlines and frequent rewards motivate individuals to initiate task-relevant action.

Arguably one of the most significant trade-offs is the emphasis placed on ethical and evidence-based decisions. Kern and Chugh (2009:378) claim that just as the concept of bounded rationality states that people have cognitive limitations, bounded ethicality means that “people are prone to systematic and predictable ethical errors”. They explain that people tend to make moral judgements in a fast, involuntary way as opposed to taking their time and being thoughtful. Thus, the effect of time pressures has the propensity to reduce ethical framing.

These considerations could prove to be challenging in enrolment strategy implementation owing to its accelerated pace. A good example that was mentioned was the rapid decision making required in 2016 with the FMF movement. My study concurs with Akana (2016) that at these times, a neutral and self-controlled position is required decision making.

In my study, I found that universities appear to develop their own model of how to manage the nexus between the development and implementation of enrolment strategy. An individual responsibility model is more transparent compared to a joint responsibility model that could breed ambiguity. However, one model was not found to be superior to the other.

One of my findings confirms that hierarchical structures tend to inhibit the formation of teamwork structures, such as cross-functional teams, and result in decreased consultation, which constrain the formation of innovative solutions (Barker, 1993). In addition, my study further suggests that the hierarchy inhibits individuals from being able to convey organisational realities without the anxiety of reprisal. Another way that hierarchy impacts is in the way complexity and uncertainty of development and implementation of enrolment strategy are not fully understood at committee meetings. Although decision making by university committees are generally obtained through representative processes, decisions still tend to favour the standpoint of university management (Ogbogu, 2013). Additionally, university structures affect universities' strategies through the embedded frictions that cause conflict between different perspectives, such as the overall aims of university management and the actions of faculty staff (Meyer Junior, Pascuci & Meyer, 2018). It emerged in my study that universities will need to be able to assess whether a hierarchical committee type structure or a looser arrangement serves the needs of developing and implementing enrolment strategy.

Balancing the concerns of various interests at universities is a challenge for management (Vartiainen, 2017) and national reforms can cause a university culture to become impersonal and dictating, focused on monitoring and evaluation (Tomlinson et al., 2018). Through my findings, there is evidence that the pressure of the national reforms exacerbates the tensions between various sub-cultures, resulting in a culture of blame. Specific mechanisms, such as engagement and negotiation, can counteract the culture of blame. Moreover, when leadership and management at universities address the various constituencies, they need to be cognisant of developing a culture that can promote the development and implementation of enrolment strategy.

National

The political instability in SA creates a problematic landscape that is charged with uncertainty that impacts significantly on the development and implementation of enrolment strategy. If governments are to establish further measures for reforms, then the instability at the national level will continue to impact negatively.

At the national level, the two key constructs are chronicity and political instability. The government is bound by the various policies that have been developed to address social justice issues such as access and quality, requiring policy implementation to address these imperatives. However, the study found that owing to political agendas, the national level is unstable and implementation is dysfunctional, resulting in a crises mode accompanied by political instability.

Driven by political agendas and a number of challenges, including a scourge of maladministration, an illegal disbursements in the NFSAS (Carolissen, 2019), and a dysfunctional school system (Jansen, 2019), the instability presents a landscape loaded with uncertainty and complexity. My study suggests that the chronic problem relevant to the enrolment system rooted in the symbolic policy-making period (Jansen, 2001) is the tension between the social justice policies related to access and success.

Furthermore, I found that the national politics place universities in a debilitating crisis mode. Such an environment demands of individuals that they are complexity ready and entails being able to assimilate a multi-level and emergent pool of skills and expertise through continuous learning and development. It is possible that the development and implementation of enrolment strategy in SA requires a team of individuals who can contribute their different expertise. The pathology of the enrolment system in SA appears to warrant palliative maintenance.

The final feature of the model in Figure 17 is the ontological shifts that are required to adjust to the realities of the different perspectives, and this will be explained in the next section.

7.3.3 Ontological shifts

An ontological shift is simply a type of re-classification or re-orientation. I use the term as a means of reflecting the shift required in an individual performing strategic thinking, who has to re-orientate themselves via an overall ontological shift, to accept the limitations and realities

that occur in the development and implementation of enrolment strategy. The reality is that the ubiquity of the emergent behaviour in the multi-level development and implementation of enrolment strategy system is largely not understood, and is observed as conflicting perspectives, emotions, anxiety and fear in the individuals performing strategic thinking. Ultimately, strategic thinking in the development and implementation of enrolment strategy requires an overall shift in a person's mindset towards being more conscious of their own and others' limitations. In other words, strategic thinking requires cognisance of people as the essential parts of the development and implementation of enrolment strategy systems.

The need for ontological shifting is evident in strategic thinking studies. At the outset, the concept of an "ontological reversal" shifts from viewing strategy as a fixed, predictable, top-down perspective that lacks agency, to a more fluid, integrated and creative perspective (Jarzabkowski & Kaplan, 2010:53). In addition, Pettigrew (1992) argues that the deepening of the ontologies in strategy research is critical to advancing the field. The practice view has already established that rather than being stable, strategy and structure are shaped by emergent interactions between individuals (Jarzabkowski & Kaplan, 2010). The stratifying of and relationship between the macro and micro layers is accommodated within a critical realist paradigm that suggests three consecutive steps beginning with structural conditioning, socio-cultural interaction and structural reproduction (Seidl & Whittington, 2014). The ontological oversimplification that is prevalent in conventional management literature side-lines individuals, but newer methodologies are extending this myopic view by considering the interactions amongst the individuals and the organisation to form a more "ontologically complex" picture (Olsen, 2004:19), relinquishing the boundaries between the micro and macro (Caldwell, 2012).

According to Giddens (1984:64), there is a reliance on structure because people require "ontological security". Although structure and agency are considered as separate in critical realism, intentionally or unintentionally, individuals have independence over the way things are formed (Bhaskar, 1975). At a more subtle level, however, "individual values, meanings, and ideas shape the world around us" (Fletcher, 2017:186).

Golsorkhi, Rouleau, Seidl, & Vaara (2015) argue that constant and iterative balancing is required to oppose the nature of unpredictability in organisations, and microscopic activity in

human activity affects strategic thinking. They state three primary ontological shifts that are relevant to the holistic strategic thinking perspective that I have developed:

1) Strategy is not something stable but constitutes a reality in flux;
2) Strategy is not limited to actions at one organisational level but spread across various levels; and
3) Strategy constitutes a genuinely social reality created and recreated in the interactions between various actors inside and outside the organisation.

Golsorkhi et al. (2015) claim that any ontological shifting of strategy as an emergent phenomena must occur in an inclusive manner by accommodating both emergent and deliberate strategy. Thus, through my findings, I show that enrolment strategy development and implementation is both deliberate and emergent, corroborating Mintzberg's (1994) definition of strategic thinking as a pattern of deliberate and emergent behaviour.

Ultimately, the main ontological shift in my study is to move towards more human centredness, which will be discussed below.

Human-centred shifts

While the development and implementation of enrolment strategy are important, I have found that the critical aspect is the individuals. A shift to being focused on people means that the organisational culture reflects the importance of people. This human-centred organisational culture is considered to promote and harness originality and creativity in thinking (Martins & Terblanche, 2003; Taha, Sirková & Ferencová, 2016), harnessed in the process of transforming enrolment decisions, whether in a crisis or not, from reactivity into responsiveness. The transformation occurs as one shifts from secure, protected thinking into a more emergent, responsive and unprotected way of being.

A human-centred shift can act as a catalyst for the development of trust and relationships in developing and implementing enrolment strategy. The creation of safe space relies on the staff members who are involved and the level of trust in relationships (Taha et al., 2016). Furthermore, I found that organisational politics or issues related to people and their relationships – how they interact, react and respond – is a reality in any organisation and must

be taken into consideration in the development and implementation of enrolment strategy. In short, any shift needs to be embedded in the human and relationship-based aspects.

In making this shift, my findings reveal a symbolic move away from the objectification of people to seeing them as sentient beings whose welfare must be prioritised as far as possible. The shifting involves repositioning from an inflexible, technical approach to a gentler, evolving approach. This principal shift to achieve a holistic strategic thinking perspective can pave the way for an emphasis on developing and cultivating more trust and relationships and supportive interventions for the wellbeing of staff during periods of high pressure, anxiety and uncertainty, such as the admissions and registration period. Other changes that incorporate more focus on people is to view data as supportive knowledge rather than a compliance culture.

I have found that it is critical that a planning office, in particular, demonstrate credibility and capability so that when things do not go as expected, the level of trust in the information, data and advice on how to manage the situation is accepted. Thus, reflecting on and considering the human and relationship aspects is an important component in the development and implementation of enrolment strategy. Other individual dynamics that strengthen strategic thinking is being probed by colleagues. Relationships with superiors take longer to establish, but the onus is on the leaders to initiate interventions that can develop trust in subordinates and vice versa. Processual, institutional and national level experience are all significant, but the former two tend to be more important than exclusive national experience that could result in a lack of institutional level understanding.

Improved understanding relies on communication; however, my study shows that communication-related challenges can be attributed to the bounded characteristics of individuals. In terms of the development and implementation of enrolment strategy, it is probable that clear communication from top management on the significance of developing and implementing enrolment strategy in terms of the sustainability of the university could improve the understanding of middle managers and diffuse some of their internal fears. To some extent, my findings indicate a need for a person with a reasoned, calming attitude to lead or assist in the development and implementation of enrolment strategy. A lack of communication and attention from the national level is also perceived by organisations as problematic.

The next shift I discuss is methodological shifts.

Methodological shifts

My study findings have shown that a way to overcome a limited perspective is to extend metaphorical methods as a means to help people understand the interconnectedness and intelligence that is needed. Other researchers also extend methodological pluralism as a measure by introducing alternative methodologies in different combinations (Shen & Midgley, 2014); in other words, methodological shifts.

Another consideration is that areas such as the development and implementation of enrolment strategy can unconsciously become focused on numbers and decisions while losing sight of the original purpose or even the people in the process. Without altering the methodology, my study suggests that the original purpose can become overshadowed, resulting in a university's culture privileging economic sustainability and profitability of the organisation over ethics or individual wellbeing. This raises the question whether a change in the currency of success to a holistic perspective is therefore required.

The next section elaborates on dialectical shifts.

Dialectical shifts

My findings show that integrated structures allow for collective decision making that generates a picture of the whole enrolment process at the institutional level. An integrative mechanism is accomplished through dialectical shifts to achieve a reprieve from misunderstanding, misinterpretation and miscommunication. In other words, the reprieve allows individuals to come together to create a shared, integrated sense of the realities in the development and implementation of enrolment strategy. An aspect of dialectical shifts is to employ multiple methodologies in strategic thinking that incorporate dialogue, inclusivity and openness (Liedtka, 1998). Dialogue serves as a way of making sense of complexity through collective reflection to acknowledge and negotiate sources of motivation, power, knowledge and legitimation.

While developing a joint or shared responsibility is an ideal platform for different actors at both faculty and institutional level, it was clear that everyone involved must have a common

understanding of the purpose and measures of success. This common understanding forms the basis of developing a shared mental model that can extend into a shared team cognition throughout the university.

Some of the literature on strategic thinking emphasise the importance of dialogue as a key methodology in developing a shared mental model (see Flood, 1999; Jackson, 2003; Shen & Midgley, 2007; Kogetsidis, 2012). Feedback obtained through dialogue is considered a regulating mechanism by challenging assumptions behind mental models. Conflict and the inclusion of diverse opinions are considered essential to this process of remaining critical (Bonn, 2005; Jackson, 2006). As Flood (1999:71) asserts, "Unanimity is a switch that dims critical reflective inquiry". In this regard, Jackson (2003) emphasises the need to ensure diversity and specifically disadvantaged groups in the dialogical framework. Schneider, Wickert and Marti (2017) confirm that diversity supports the integrity of a system. Apart from dialogue in the development and implementation of enrolment strategy having essential functions in building understanding and closing gaps in interpretation, my study shows that there is a release from what can be an isolating and burdensome process when tacking the polemic trade-offs.

Complexity shifts

Through my study, I found that institutions experience challenges in recruiting and retaining suitable professionals who work in enrolment strategy development and implementation because there is a lack of staff with data analysis and interpretation skills. However, coupled to this, a multi-dimensional and multi-layered amalgamation of skills and abilities are required. These competencies are developmental and it is possible that the development and implementation of enrolment strategy require a dedicated team of individuals who can contribute elements of their expertise. Rather than viewing the development and implementation of enrolment strategy as the sole responsibility of one individual, a shift is required to teams of individuals. It appears that individuals require continuous learning and development to address the complexity of enrolment strategy development and implementation.

My study suggests that a consequence of individuals' processing capacity limitations has a bearing on their data literacy and risk appetite, which are both relevant to making decisions in

the development and implementation of enrolment strategy. A data translation function that can give significance to the data in terms of practical application may be required. In one study, it was found that only 18% of organisations consider that they have the basic ability for data collection and analysis (Ariker, Breuer & Mcguire, 2014). The role of data translation is focused primarily on the optimisation of the value of analysis and communication of the results. Data translators thus close the gap between decision making and the analysis by tackling the disparities of data literacy. It appears that the demand for data translation may increase considerably over time in response to the complexity and growth of big data and artificial intelligence (Henke, Levine & McInerney, 2018).

Process shifts

In terms of the development and implementation of enrolment strategy, my study showed that practitioners had to orient themselves to the future, either through a predictive or adaptive mode. These two modes are associated with causal and effectual thinking, respectively, and map against two different systems of thinking – one being quick, largely unconscious and converging on details, while the other is conscious, reflective and diverges to the big picture. Both contrasting ways of thinking are needed in strategic thinking. Another way of describing these two ways of thinking is a helicopter view and an 'on the ground' view. Enrolment realities temper unrealistic ambitions that can get absorbed into institutional identities. In terms of the process, universities adopt either a downward, upward or combination approach to the development and implementation of enrolment strategy, but each method is affected by problems associated with people, such as communicating, negotiating, compromising and eventually committing.

My findings show that in terms of human resource processes, it might be useful to retain long-standing middle managers who can openly convey organisational realities to top managers without fear of retribution (Vuori & Huy, 2016).

My study further suggests that committees stimulate a weakened sense of responsibility, making its members bounded in terms of decision making and therefore not conducive to the development and implementation of enrolment strategy. The paradigm shift from a mechanistic committee view is manifested through "accountability, collaboration, and commitment from all levels of an institution" (Bischoff, 2007:8). Structures can limit the development and

implementation of enrolment strategy (Black, 2010) but Henderson (2005:4) argued that the development and implementation of enrolment strategy had to be loosened by being a "part of the academic fabric" that draws on data and institution-wide engagement.

7.4 Limitations

Although the scope of my study is limited to SA universities in a developing country context, the conclusions can be broadly applied to all universities as they too are faced with various complexities when making strategic decisions. The multi-level methodology, actions and interactions that lead to complexity has relevance to any context.

A limiting factor was the stage of obtaining permission from gatekeepers to access interviewees, which was both labour and time-intensive. Consequently, this stage determined the number of participants and universities included in the study and resulted in the data collection phase being extended by approximately three months. Including this step was essential to ensure that the process was rigorous and adhered to strict ethical procedures as a key principle in the study. While, on the one hand, this suggests a university was dominant, on the other, although 14 interviews were performed, I did not use all of the individuals in a uniform manner. Through this one university I was able to access different categories of staff members (top management as well as support staff within faculties and at the institutional level), which enriched the data by giving access to a variety of perspectives from the same organisation. Furthermore, I took every measure to ensure that my findings were not biased towards one university because I had the opportunity to do more interviews at this university.

The interviews were restricted to university management and professional support staff. I did not extend the interviews to academic staff, which could provide insights into how academics perceive themselves in relation to the development and implementation of enrolment strategy. Another limitation was that group dynamics that could influence the various levels were not considered.

7.5 Reflections on the DBA journey

Transitioning into a management-based qualification had its initial teething problems for one who is from a quantitative, rational, natural science background. However, I soon realised that the DBA qualification had immense value for me in my role as a professional support staff

member at a public university in South Africa. The relevance of the material covered within the DBA allowed me to align my studies with my position at the university. This alignment appealed to me, and my desire and intention manifested throughout the coursework and thesis phase by trying, as far as possible, to align my studies and work.

Since I was in a position that concentrated largely on enrolment planning, a field that was relatively new to me at the time, and I was therefore still 'learning', I crafted assignments carefully around this topic and carried it into my thesis. My experience of enrolment planning was that it was a numbers-focused, technical exercise. However, I discovered through practical experience that enrolment planning is not a stand-alone activity but a comprehensive operation that involves numerous relationships across management at universities, faculties, support divisions or units and, most importantly, students. I was thus presented with the challenge of trying to grasp what the priority was – the numbers or the people. Another option was that both were important and that other variables and factors also contributed.

In order to expand my knowledge of the above topics, I developed my study's overall research question with the objective of understanding the factors that have a bearing on enrolment strategy development and implementation in order to gain an understanding of the strategic thinking perspectives required in the entire process. My study topic, therefore, emerged as a personal trajectory in relation to the nexus between my practice and research areas.

There is generally a gap between practice and research as each is rooted in a different perspective (Raut & Veer, 2014). Generally, I have found that managers are situated in a practice perspective and concerns are often in relation to the specific dynamics of their individual work area. Research is generally the perspective of academics who tend to be more involved in the development of theories, widespread standards and explanations. The delay separating the dynamic and, at times, ever-changing activities of managers and the research focus often grows (Jarzabkowski, Giulietti, Oliveira, & Amoo, 2013). Nevertheless, there are still many pertinent research topics that can develop thinking in a manner that investigates factors that include emergent factors and concerns that are relevant to practice.

While being an insider in research has its advantages (Mercer, 2007), I was aware that my own biases could compromise the research. I, therefore, developed a methodology that could keep me grounded so that my deep level of understanding and interpretation could be used to uplift

my findings. Choosing a qualitative methodology based on the individual was, therefore, essential. In short, the research that I performed for my DBA has contributed not only to my overall growth as a person but to my professional development as well. My intention is to utilise my knowledge and understanding as a researcher in my field, and continue to view my practice through the eyes of a researcher.

7.6 Directions for Future Research

In terms of future research, this research presents several opportunities for further study, as listed below:

- More in-depth case studies and comparative case studies that consider the multi-level framework that this study has provided;
- The inclusion of academics in the sample;
- How the ontological shifts are utilised by universities and the challenges that are encountered;
- Studies with a focus on uncertainties and anxieties in enrolment; and
- The effect of gatekeeper processes on strategy research at universities.

7.7 Final Remarks

My contribution in this study is not limited to strategic thinking in the development and implementation of enrolment strategy but to strategic thinking in general in organisations. In the sections above I provided the various theoretical and practical contributions emanating from this study that may be useful for other studies on strategic thinking. Although the context is the development and implementation of enrolment strategy, the study can be applied to strategic thinking in general. Furthermore, I have mentioned specific improvements that can be used at all three levels – individual, organisation and national. Although the study context is focused on a university context in a developing country, and specifically concerning the development and implementation of enrolment strategy, the general principles can broadly be applied to strategic thinking in the development and implementation of strategy. Indeed, three particular overarching theoretical contributions are significant:

- **Complexity** perpetuates the development and implementation of strategy;

- **Impact of varying perspectives** (individual, organisation and national) at different levels must be taken into account; and
- **Ontological shifts** are required in strategy development and implementation in order for studies on strategic thinking to remain relevant.

In conclusion, there is a need to give up our outdated mental models or mindsets in strategy development and implementation to accommodate newer and innovative approaches that are adaptive and flexible where needed.

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9 Appendix 1: Invitation to participants

INFORMED CONSENT FORM

Project Title: A holistic strategic thinking perspective to enhance enrolment strategy at universities

Investigators: **Ms. Nandarani Maistry, DBA student** at the University of Bath, UK (student number 169207940)

1. I agree to be involved in the above research project as a participant to be interviewed.
2. My participation is voluntary.
3. I allow written notes to be taken during the interview and audio recording of the interview.
4. I can withdraw at any point in the process.
5. The information related to this research project has been explained to me.
6. I understand the nature of my role in the research project.
7. I have had the opportunity to ask questions about my involvement.
8. I understand that my personal details (and any identifying data) will be kept strictly confidential.
9. I understand that I may withdraw my consent and participation at any time.
10. I have been asked whether I require a copy of this consent form and provided with one if required.

_____ _____

Signature (Participant) Date

_____ _____

Signature (Ms Nandarani Maistry) Date

10 Appendix 2: Example of request for approval to gatekeeper (via email)

Dear Prof XXX

As a part of my doctoral research, I am undertaking interviews with various staff members at public universities in South Africa. I would like to request permission to undertake interviews with a few staff members at University of the XXX who are involved in or have oversight of enrolment planning and management. Typically, this would be the director who is responsible for planning, the registrar, the institutional/enrolment planning officer, a dean of a faculty and the responsible DVC. If approval is provided, I will send a letter of invitation and informed consent form to the participants. If they agree to participate, I will then arrange an interview. Participant's involvement is completely voluntary and they are allowed to withdraw at any point. The study is fully anonymised and no identifiers of universities or individuals will be used.

I have already received approval from various South African universities that have agreed to participate in the study and I look forward to participation from University of the XXX as well. The study will contribute to the body of knowledge on strategic thinking at public higher education institutions in South Africa. The focus is on understanding the individual's experience and perspective.

Attached, please find an informed consent form and letter of invitation, which will be sent to each participant. These documents provide some background to the study, however, if you require additional details, please let me know. The study has received ethical clearance through the University of Bath ethics committee. I have also received ethical clearance to proceed with the study as a staff member at the University of XXX. These approvals have also been attached. As a result of these ethical approvals, some universities in South Africa have granted institutional approvals based on reciprocity. Should you require any additional information, please do not hesitate to contact me.

I look forward to hearing from you.

Kind regards
Nandarani Maistry
Candidate; Doctor of Business Administration (DBA) in Higher Education Management
School of Management University of Bath

11 Appendix 3: Example of approval from gatekeeper (via email)

[redacted]

05-Feb-2019

Dear Applicant

[redacted] AUTHORITIES APPROVAL

Research Project Title:
Developing a holistic strategic thinking perspective to enhance Strategic Enrollment Management (SEM) at higher education institutions

This letter serves as confirmation that your request to collect data from students and/or staff members at the University of the [redacted] for your research project has been approved.

Kind Regards

[redacted]

PROF [redacted]
VICE-RECTOR: RESEARCH & INTERNATIONALISATION
CHAIR: SENATE RESEARCH ETHICS COMMITTEE

[redacted]